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Welcome to the International Association for Disability and Oral Health Conference 2022

The abstracts included in this book were reviewed by the scientific committee of the International Association for Disability and Oral Health (iADH). It was an honour to edit this collection of abstracts, which showcases both the scientific depth and geographic extent of the iADH. This labour of love would not have been possible without the efforts of the reviewers. Our thanks must also go out to ; Prof. Andreas Schulte, Prof. Blanaid Daly, Dr. Caoimhin Mac Giolla Phadraig, Prof. Colman McGrath, Prof. Gustavo Molina, Prof. Luc Marks, Prof. Pedro Diz-Dios, Prof. Shelagh Thompson, and Dr. Suzanne Kramer for reviewing and scoring manuscripts. This book contains only those abstracts that were given a minimum qualifying score by the review committee.

Yours Sincerely

Dr. Sharat Chandra Pani
Editor - Abstract book iADH2022

Dr. Denise Faulks
Organizing Chair, iADH 2022

Prof. Gustavo Molina
Chairman Scientific Committee, International Association for Disability and Oral Health

Prof. Alison Dougall
President, International Association for Disability and Oral health

LIST OF ORGANIZERS

Dr. Denise Faulks
Santé Orale et Soins Spécifiques (French association for disability and oral health)

Message from the Organizing Chair

It is a great honour to head the dynamic Organising Committee for the iADH 2022 conference in Paris, led by the French national association Santé Orale et Soins Spécifiques.

Two of the mission aims for iADH are to encourage research and education in Special Care Dentistry, and the biennial international conference is the showcase for all our talented colleagues working in this field. The theme for this edition is “Quality Matters – ensuring equitable health outcomes”. The rights of people with special needs to achieve an equitable standard of oral health need to be affirmed. Within the iADH definition, SCD concerns those individuals with an activity restriction, a health condition and/or a disability that directly or indirectly affects their oral health, within the personal and environmental context of that individual. This population may include patients of all ages, disabled persons, medically compromised patients, mental health patients, patients with dental fear, frail older persons, prison populations, refugees, homeless persons, amongst others. All of our key speakers, invited speakers, oral communication presenters and poster authors have shown that they rise to the quality challenge in their daily practice, whether working clinically, in public health, in education or in basic science. We are delighted to publish these examples of best practice and scientific evidence that make high-quality special dental care a reality worldwide.

Denise Faulks
Chair of iADH
Chair of iADH2022 Paris organising committee
Treasurer of Santé Orale et Soins Spécifiques

Message from the President of the iADH

It is my great pleasure as President to present the proceedings and abstracts for the **26th IADH Congress** to be held in Paris, France under the auspices of Santé Orale et Soins Spécifiques (SOSS). The meeting is entitled 'Quality Matters'

Quality of healthcare is a **key component** of the route to **equity and dignity** for people with disabilities and disadvantages yet people with disabilities remain largely absent from mainstream health research, through poorly justified exclusion criteria and inaccessible study design. Thankfully, the necessity for inclusion of traditionally under-represented groups in research is receiving increasing attention with growing concern over the appropriateness of translating research conducted with narrow groups of participants that do not represent the demographics of society in which we live.

Taking the road less travelled, the iADH is a global organisation with over 8000 members from all sectors of health and social care specifically interested in disability and oral health. Since 1970, iADH has hosted a biennial congress that provides members from all over the world with an opportunity **to assemble in one place**, and **share their scientific knowledge** and **collective experience to improve desired oral health outcomes for people with disabilities**. iADH recognise that Quality oral care has to be based on scientific knowledge and this abstracts book highlights contributions from **world-class keynote speakers** and **showcases of the best available research** in Special Care Dentistry.

Alison Dougall
President
International Association for Disability and Oral Health

Reviewed Abstracts

00100013

Does piperine modulate swallowing functions in healthy humans?

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AIM(S)

Dysphagia refers to swallowing difficulties with foods or any substance. It is usually caused by underlying health conditions, such as cerebral palsy and chromosomal abnormalities. Previous reports revealed that piperine activated swallowing function in dysphagic patients. The aim of this study was to examine how the piperine application affects excitability of pharyngeal motor cortex and swallowing reflex.

METHODS

Ten healthy volunteers (age range 22-37 years) participated in this study. The intraluminal catheter was intubated for recording EMGs and infusing distilled water onto the pharynx to evoke swallowing. Bipolar surface EMG electrodes were attached to the skin over the anterior surface of the digastric muscle on the left side. Single-pulse transcranial magnetic stimulation(TMS) was delivered over the pharyngeal and thenar motor cortices to induce respective motor evoked potential (PMEP and TMEP). Distilled water was injected onto the pharynx at 0.05 mL/s and the onset latency of the first swallow (Latency) was measured. MEPs and Latency were obtained before (baseline), immediately after and every 15 min after 1-min nasal inhalation of piperine up to 30 min. Black pepper oil(BPO) was used as piperine. Subjects were randomized to receive one of three interventions (100 % v/v BPO, 50 % v/v BPO and 100 % v/v SAO; sweet almond oil inhalation). The mean values of the percent change in MEPs amplitude and latency were compared between baseline and follow up measurements by one-way repeated measures ANOVA.

RESULTS

PMEPs on dominant pharyngeal motor cortex showed significantly increase up to 30 min after 1-min 100% v/v BPO inhalation, whereas there was no difference in SAO and Latency.

CONCLUSIONS

Nasal inhalation of piperine at least showed immediate and facilitatory effects on excitability of pharyngeal motor cortex in the healthy adults. Olfactory stimuli might be useful and safety methods for severe dysphagic patients.

00100014

Dental health care for children with down syndrome – parents’ description of their children’s needs in dental health care settings

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AIM(S)

A visit to the dental clinic may be challenging for a child with Downs syndrome due to medical and oral health problems as well as communication problems. The aim of the present study was to explore how parents of children with Down syndrome describe their child’s needs in the dental health care setting.

METHODS

In an online survey concerning parental experiences with dental health care in Sweden, free comments were analysed with content analysis. By answering the survey, parents consented to participate. Ethical approval was obtained by from the Regional Ethics Committee for Human Research at Linköping University, Sweden.

RESULTS

The analysis resulted in five categories: “Need for continuity of care in dental health care”; “Need for dental health care professionals to have knowledge and expertise in caring for children with Down syndrome and other disabilities”;

“Need for dental health care professionals to use a caring approach with children with Down syndrome”; “Need for the child with Down syndrome to be prepared to participate in their dental health care visit” “Need for the child with Down syndrome to be given the same rights as typically developing children”.

CONCLUSIONS

To support children with Down syndrome in an optimal way, dental health care needs to be tailored to meet the child’s unique needs. When visiting dental health care services, children with Downs syndrome need continuity, and they need to meet professionals who have a caring approach and knowledge and experience of children with Down syndrome.

00100015

Oral rehabilitation of dysmorphic and down syndrome patient – A case report

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CASE DESCRIPTION

Female patient, 5 days old, diagnosed with neonatal tooth, dysmorphic syndrome, down syndrome, cleft palate and malnutrition. Patient shows third grade mobility in neonatal tooth.

A neonatal tooth dental extraction was performed with anesthetic intubation due to patient's age, carious wounds, malnutrition state, and risk of bronchial aspiration.

Topical anaesthesia was carried with 10% lidocaine while infiltration was done with .5mg lidocaine 2%. Tooth was extracted with forceps and an impression (mold) of the maxilla was taken to build a provisional passive plate for the patient to start oral suction feeding. Patient was discharged and didn't return for her review appointment.

After 27 months, patient returns with pain, complete dental destruction and moderate malnutrition (19.8Lb) as her feeding was solely on soft food.

CLINICAL IMPLICATION

Oral rehabilitation was carried out with general anaesthesia. After dental cleansing, carious tissue in maxillary and mandibular teeth was removed. Treatment consisted of: Upper arch: 2nd molar sealant treatment, 1st molar pulpotomy, placement of triple antibiotic paste and metal crowns due to destruction, composite crown in canines and lateral teeth as well as pulpectomy in left lateral incisor. Mandibular teeth: sealants in 2nd molars, triple antibiotic paste and metal crowns in first molars, composite crown in canine and metal crowns in central incisors with minimal enamel wear.

Total removal of infection in oral cavity, restoration of dental functionality, ability to start solid diet. After two weeks, patient showed an increase of weight from 19.8Lbs from presurgical weight to 21.6Lbs.

CONCLUSIONS

Methods carried out remove neonatal tooth, addition of provisional passive plate and oral rehabilitation showed improvement in patient's quality of life and general health. The latter managed to improve her diet given the restoration of her dental functionality.

00100016**Winners don't always get the gold! ameloblastoma in an individual with ASD and ADHD****H. Mcnaughton, M. Jandu***Rotherham Nhs Foundation Trust, Rotherham, United Kingdom***CASE DESCRIPTION**

A 23 year old female with autistic spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD) presented with a six week history of pain and facial asymmetry affecting the right side of her face. Clinical examination showed a right facial swelling and a painful intra-oral buccal expansion in the right mandibular region. Imaging displayed a well demarcated expansile lesion extending from her second premolar to the sigmoid notch; displacing the lower right third molar and causing root resorption of the adjacent molar teeth.

CLINICAL IMPLICATIONS

Ordinarily an incisional biopsy would be taken to determine the histopathological diagnosis, allowing definitive treatment planning. However, due to her ASD and ADHD, this patient was extremely anxious and struggled to allow an intra-oral examination. As a result, general anaesthetic (GA) was required to carry out any procedures. In the hope of avoiding repeat GA's the decision was made to enucleate the lesion and remove the impacted third molar tooth in the first instance.

Histopathology confirmed the diagnosis of an ameloblastoma. Although a benign lesion, ameloblastoma can be locally aggressive and it has been documented that cancerization can occur in recurrent cases. The gold standard treatment would have been a segmental resection of the affected mandible extending 1.5–2 cm into the healthy tissue, and simultaneous reconstruction with a vascularised osseocutaneous free flap. Taking into account the morbidity and recovery associated with this operation and the impact her

ASD and ADHD would make upon this, the decision was made to closely monitor the area with a view to further intervention should recurrence occur.

CONCLUSIONS

This case highlights behavioural challenges which impact the decisions made at multiple levels throughout the patient management process. Unfortunately, this may result in deviations from the gold standard leading to potential long term detrimental effects to the patient and their treatment outcome.

00100017

Analysis of behavioural management for dental treatment in patients with dementia using the Korean National Health Insurance data

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AIM(S)

The global population is aging rapidly, and accordingly, the number of patients with dementia is increasing every year. Although the need for dental treatment increases for various reasons in patients with dementia, they cannot cooperate during dental treatment. Therefore, behavioural management, including sedation (SED) or general anaesthesia (GA), is required for patients with dementia. Thus, this study aimed to investigate the trends and effects of SED or GA in patients with dementia undergoing dental treatment in South Korea based on the Korean National Health Insurance claims data.

METHODS

This study utilized customized health information data provided by the Health Insurance Review and Assessment Service. Among patients with records of using sedative drugs during dental treatment from January 2007 to September 2019, patients with the International Classification of Diseases-10 code for dementia (F00, F01, F02, F03, and G30) were selected. We then analysed the full insurance claims data for dental care. Age, sex, sedative use, and dental treatment of patients were analysed yearly. In addition, the number of cases performed under general anaesthesia (GA) or sedation (SED) per year was analysed, and changes in behavioural management methods with increasing age were investigated.

RESULTS

Between January 2007 and September 2019, a total of 4,383 (male,1,454;female, 2,929) patients with dementia received dental treatment under SED or GA. The total number of SED and GA cases were 1,515 (male, 528 ; female, 987) and 3,396 (male, 1,119 ;female, 2,277) cases, respectively. The total number of cases of dental treatment for 4,383 patients with dementia was 153,051 cases, of which 2.22% were under GA and 0.98% were under SED. Midazolam was the most commonly used drug for SED.

CONCLUSIONS

Although gingivitis and pulpitis were the most common reasons for patients with dementia to visit the dentist, GA or SED for patients with dementia was frequently used in oral and maxillofacial or periodontal surgery.

00100018

Is day surgery more risky for patients with special needs?

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AIM(S)

The objective of this study was to assess the safety and quality of day care management for dental surgery under general anaesthesia in a population with special needs and to compare the results with a control population.

METHODS

A retrospective observational cohort study was performed. The study population included all patients who had day care dental surgery under general anaesthesia for one year. The primary endpoint was the rate of unscheduled admission, which was defined as the unplanned need to maintain a hospital stay on the evening of the surgical procedure. Secondary endpoints included occurrence of complications during the perioperative period (either anaesthesia or surgery related) on the day of surgery (D0) and on day 1 and satisfaction of patients or their relatives.

RESULTS

Data from 138 patients (70 with special needs and 68 controls) were analysed. In both groups, patients were young (mean age 33 years +/- 14 in each group). Special needs were mainly related to autism (34%), cerebral palsy (19%), intellectual disability (19%) and Down syndrome (10 %). Surgical procedures were

more extensive in the control group. There was one unscheduled admission in the special needs group and three in the control group (RR 0.32, 95% CI [0.03; 3.04]). There was no difference in the rate of complications.

CONCLUSIONS

In our cohort, day care management for dental surgery under general anaesthesia is safe and effective for patients with special needs.

00100019**Analysis of sedation and general anaesthesia in patients with special needs in dentistry using Korean healthcare big data****J.I.E.U.N. Kim¹, K.S. Seo², H.J. Kim²**¹*Seoul National University Dental Hospital, Seoul, Republic of Korea*²*Department of Dental Anesthesiology, Seoul National University, Seoul, Republic of Korea***AIM(S)**

People with Special Needs tend to need diverse behavioural management in dentistry. Patients with medical, physical or psychological disorders may lack cooperation and therefore require sedation or general anaesthesia to receive dental treatment. Using the Healthcare big data in Korea, the present study aimed to analyse the trends of sedation and general anaesthesia in patients with special needs undergoing dental treatment. It is believed that these data can be used as reference materials for hospitals, for preparation of guidelines and related policy decisions in associations or governments for patients with special needs in dentistry.

METHODS

The study used selected health information data provided by the Korean National Health Insurance Service. Patients with the record of use of one of eight selected drugs used in dental sedation during the period from January 2007 to September 2019, those with International Classification of Diseases-10 codes for ADHD, phobia, brain disease, cerebral palsy, epilepsy, genetic disease, autism, mental disorder, mental retardation and dementia were selected. The insurance claims data were analysed for age, gender, sedative use, general anaesthesia, year, and institution.

RESULTS

The total number of patients with special needs who received dental treatment from January 2007 to September 2019 was 116,623 and the total number of cases was 2,801,276. Number of sedation cases were 136,018 done on 69,265 patients and number of general anaesthesia cases were 56,308 implemented on 47,257 patients. In dentistry, ADHD was the most common disability for sedation cases while phobia was the most common cause of disability for general anaesthesia. In sedation cases, the male to female ratio was higher in male (M:F=64.36%:35.64%).

CONCLUSIONS

Big Data analysis suggests that the practice of sedation and general anaesthesia in dentistry for the patients with special needs in Korea is increasing rapidly thus making guidelines, educating and system reinforcement are necessary.

Managment of oral lichenoid ulcers in a patient with lupus erythematosus, liver transplant and ulcerative colitis– a case report

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CASE DESCRIPTION

A 55-year-old female patient with lupus erythematosus, ulcerative colitis, and liver transplant who complained of oral ulcers was referred to the Oral Medicine Department of Tehran Dental School. She had been diagnosed with oral lichen planus, through biopsy, 13 years ago. On clinical examination of the mouth, a crescent ulcer in the centre of the right cheek surrounded by a radial white plaque existed. Also, At the right ventrolateral lingual surface, a deep knife-like ulcer with a white and red plaque at the border appeared. The left areas were less involved.

CLINICAL IMPLICATIONS

Topical corticosteroids were used as the first line of treatment. The patient was in good health and followed hygiene instructions. She was under the supervision of a physician for her systemic conditions. After follow-up sessions every two weeks, the lesions got better, but did not completely resolve. Given the fact that drug-related lichenoid reactions can produce a similar appearance to lichen planus, allopurinol was removed from the diet and Remicade discontinued in consultation with her physician. This caused the patient to relapse repeatedly which was then addressed by increasing the dose of systemic corticosteroids drug instead and then it was tapered slowly. Finally cryotherapy was used and after two weeks, the patient was prepared for bowel surgery with a well-controlled condition.

CONCLUSIONS

This case shows us how important can it be to manage some of the oral lesions. Therefore, it is recommended that an accurate history be taken for all patients, and after a complete oral examination and review of his paraclinical status and medical records, the steps of treatment and disease management be decided by an up-to-date specialist. It is suggested that further studies be performed to design a special treatment approach for patients with oral lichen planus along with several autoimmune diseases simultaneously.

00100021

A case series: The use of resin bonded bridges for anterior tooth replacement in special care patients under sedation

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CASE DESCRIPTION

Resin bonded bridges (RBBs) are a conservative option for replacement of anterior teeth and may be the preferred treatment option for Special Care Dentistry (SCD) patients particularly where they cannot tolerate a denture. Success rates of RBB placement under sedation in SCD have not been investigated; particularly the potential for multiple repeat sedations (bridge construction, fit and potential repeat sedations for failure). This information would impact on treatment planning, particularly in cases where best interest decisions are being made. This retrospective case series aims to examine the success of RBB placement for six patients within Birmingham SCD department; all of whom required sedation to undergo dental care. The case series explores 'success' of placement via quantitative and qualitative data collection.

Clinical records were analysed retrospectively to identify patients seen by SCD who had an anterior tooth replaced with a RBB with sedation. Six cases were suitable for inclusion. The records were analysed, and data collected regarding patient information, capacity assessment/ best interest discussion, and sedation information. A prospective telephone interview was carried out with patients, or their next of kin/main carer for qualitative data collection.

CLINICAL IMPLICATIONS

Of the six cases, three (50%) of the patients experienced bridge loss. The telephone interviews highlighted an emotive response to anterior tooth loss.

Some of the respondents indicated tooth replacement had a positive difference to the patients' quality of life and some suggested there was little/no change.

CONCLUSIONS

Appropriate best interest meetings for patients without capacity are vital for treatment planning anterior tooth replacements with sedation. This allows the dentist to manage expectations and discuss limitations of treatment. The risk of failure of the RBB should be discussed, and it should be made clear that there are limitations to RBB replacement under sedation. Careful case selection and management of expectations prior to treatment are essential.

00100022

Quality improvement project: Patient experience of intravenous sedation during the COVID-19 pandemic

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AIM(S)

The Sheffield Special Care and Community Dental Service (SSCDS) provide a primary care intravenous sedation service for patients with dental phobia, or those unable to tolerate routine dental care due to an impairment. The COVID-19 pandemic has resulted in a substantial impact to patient care. Patient experience of intravenous sedation during this time may have been affected by multiple factors. Patient-Reported Experience Measures (PREMs) are an important indicator of the quality of care provided. This project aims to explore patient experiences of SSCDS intravenous sedation services during the COVID-19 pandemic, identify weaknesses in quality of care, and explore solutions.

METHODS

Patients who underwent treatment with intravenous sedation between August 2020 and February 2021 ($n=23$) were contacted and invited to participate. The demographics of the sample group included patients with well-controlled medical conditions and mild learning disabilities. All patients were ASA I/II with capacity to consent to treatment. A 12-part qualitative questionnaire was designed and conducted either via telephone call or COVID-safe postal survey, depending on patient preference. Responses were collected and recorded on a spreadsheet.

RESULTS

A 61% (14/23) response rate was achieved. 100% (14/14) patients agreed with statements regarding their overall experience, including 'I knew about the

risks and benefits of my treatment', and 'I felt that I was treated kindly and respectfully'. Four patients reported that staff wearing enhanced PPE 'felt no different'. Seven patients reported that enhanced PPE made them feel 'safe'. Two patients reported that it was hard to hear staff talking.

CONCLUSIONS

Overall, respondents reported high-quality experiences of intravenous sedation during the COVID-19 pandemic, whilst enhanced PPE was worn. Negative impact of enhanced PPE on patient-clinician communication has been reported by other authors. However, we found that the potential negative impact of enhanced PPE on communication is likely be overestimated. Visual-aids may be used to overcome difficulties recognising staff.

00100023**Barriers to oral health in care homes****N. Cloney***Sheffield Teaching Hospitals Nhs Foundation Trust, Sheffield, United Kingdom***AIM(S)**

To explore barriers affecting residents' ability to access dental care in residential care homes in Salford, United Kingdom. To identify solutions to maximise access to dental services within this setting.

METHODS

A list of 15 residential care homes was generated. All homes had at least one resident registered under the care of Salford Royal NHS Foundation Trust Community Dental Services. A structured 18-part qualitative questionnaire was designed to explore the potential barriers faced by residents when accessing dental care. Distribution was via e-mail and handout. Responses from at least 1 managerial staff member and 3 care staff members were requested. Responses were collected and analysed using Microsoft Excel. Telephone conversations were then conducted with 5 care homes, utilising the questionnaire as an interview guide.

RESULTS

13 managerial staff and 14 care staff responded, with a total response rate of 45% (27/60). Midpoint values were used to calculate averages. 63% of residents on average displayed care-resistant behaviour. The level of training provided varied between formal qualifications; training on the job; and no training. 21% (3/14) of care staff reported 'no training', when compared to 8% (1/13) of the managers. 37% (10/27) of respondents indicated that most residents had no regular dentist, and only 15% (4/27) described the dental care received by their residents as 'regular'. Average waiting times were 2-3

weeks for routine care, and 1-2 days for emergency care. 53% (10/19) of respondents described being able to establish if residents were exempt from dental charges as 'difficult'.

CONCLUSIONS

Care-resistant behaviour exhibited by residents represented the primary barrier to providing and accessing care. Staff training in oral care varies between homes. Discrepancies exist between perceived levels of training in oral care between managerial staff and carers. Training sessions for care staff were planned, and an information leaflet on the management of care-resistant behaviour was produced.

00100024

Behavioural disorders and impact oral health quality

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AIM(S)

Behavioural disorders represent a clinical challenge for health care providers to accurately assess, diagnose, and treat. Additionally, difficult oral hygiene may occur in these patients, compromising oral health. This study aimed to verify the oral health impact and status in patients with behavioural disorders: Oppositional Defiant Disorder (ODD), Autism Spectrum Disorder (ASD), and Hyperkinetic Disorder (HD).

METHODS

The study was approved by the Ethics and Research Committee (protocol n. 3,330,832) under informed consent of the parents or guardians of the patients. A cross-sectional study using a convenience sample was performed, comprising patients diagnosed with behavioural disorders from a regional center for dental care for patients with special needs at Presidente Prudente, São Paulo, Brazil. Thirty patients were evaluated, with a range age from 12 to 25 years old. The clinical parameters of quality of oral health and dental caries experience were evaluated using the International Caries Detection and Assessment System (ICDAS), Index of Invasive Needs (INI) and visible index biofilm.

RESULTS

Most patients were male (76.7%), white (73.3%) and illiterate (80.0%). The mean age was 16 years old, 10.0% had heart disease, 36.7% had seizures and (30%) 9 patients were syndromic. Among them, Fragile X Syndrome was observed in 4 cases (13.3%). The most used drug was Risperidone (56.7%). Self-mutilation was observed in 14 patients (46.7%). There is dependence on oral hygiene in 80% of the patients. The hygiene condition was deficient in 50.0% of the patients and 56.6% had gingivitis, 36.7% had ICDAS above 3 (enamel cavity) and 26.6% had a need for tooth extraction due to extensive carious lesions.

CONCLUSIONS

The patients with behavioural disorders presented characteristics that impairs the maintenance of oral hygiene. Continuous use of drug polytherapy, dependence on performing oral hygiene and difficulty in dental care among these patients reinforce the risk of oral disease.

A longitudinal descriptive study on disabled persons oral health in ADAPEI Marne département

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AIM(S)

In France, approximately one million people with disabilities have difficulties to access to oral care due to their disabilities. This main public health problem, led to this observational descriptive study to establish an inventory of the care needs of people residing in the medico-social structures of the Marne department in Grand Est region in France. This study aims to evaluate oral health progress and accessibility to oral care after an annual screening in ADAPEI establishments after 4 years of observation in the same population.

METHODS

This cross-sectional observational and descriptive study was conducted between July 2016 and December,2019 and included 2500 persons from 21 medico-social establishments in the Marne département who had received an annual screening. The form comprised three parts, the first part collected demographic data, the second part evaluated dental caries, and plaque and tartar indices, and the third part described oral functions. Data was entered on software: SPSS version 18. Quantitative variables were tested by the Fischer test (ANOVA) and qualitative variables by Chi-Square test. Data were analysed in two parts; ages childhood to 16 years old, and adults from 17 to 65 years old.

RESULTS

Significant dental care needs were noted: dmft index was 4.82 vs DMFT 8.86. Dental plaque index was 20% in children population and nearly 65% in adults. Only 18% are Orientated toward orthodontic treatment. 7% of this population needs dental restorations. 45% needs prosthodontics care in adults.

needs in functions rehabilitation as ventilatory functions was estimated at 37% and 35% for swallowing within the population.

CONCLUSIONS

There is a significant need for oral care and prevention among the establishments reported. To go further, a reflection must be conducted with all the actors of oral health at least at the scale of the Champagne-Ardenne to define a coherent public health policy for the region.

00100027

Inhibitory effects of *Streptococcus salivarius* K12 on formation of cariogenic biofilm

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AIM(S)

The purpose of this study was to investigate anti-cariogenic effects of *Streptococcus salivarius* K12 on a cariogenic biofilm containing *Streptococcus mutans*.

METHODS

S. salivarius K12 was cultured in M17 broth. After collecting the spent culture medium (SCM) of the bacterium, and the antimicrobial activity of the SCM against *S. mutans* was investigated. *S. salivarius* K12 was co-cultivated with *S. mutans* using a cell culture insert. To investigate anti-cariogenic biofilm, when the biofilm was formed using salivary bacteria and *S. mutans*, *S. salivarius* K12 was inoculated every day. The mass of biofilm was investigated by a confocal laser scanning microscope. Bacterial DNA from the biofilm was extracted, and then bacteria proportion was analysed by quantitative PCR using specific primers. The expression of *gtf* genes of *S. mutans* in the biofilm with or without *S. salivarius* K12 was analysed by real-time RT-PCR.

RESULTS

The SCM of *S. salivarius* K12 inhibited the growth of *S. mutans*. Also, in co-cultivation, *S. salivarius* K12 reduced *S. mutans* growth. The formation of cariogenic biofilm was reduced by adding *S. salivarius* K12, and the count of *S. mutans* in the biofilm was also decreased in the presence of *S. salivarius* K12. Furthermore, *gtfB*, *gtfC*, and *gtfD* expression of *S. mutans* in the biofilm was reduced in the presence of *S. salivarius* K12.

CONCLUSIONS

S. salivarius K12 may inhibit the formation of cariogenic biofilm by interrupting the growth and glucosyltransferase production of *S. mutans*.

00100028

Using social determinants of health and interdisciplinary faculty to create an IDD dental curriculum which improves empathy and behaviour management skills in oral health providers

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CASE DESCRIPTION

The Ohio State University (OSU) Nisonger Center is a University Center for Excellence in Developmental Disabilities (UCEDD) that was established in 1966. This center performs research, provides interdisciplinary clinical services and training for individuals with IDD (intellectual and developmental disabilities), and educates interdisciplinary students, residents, and fellows in the care and management of individuals with IDD. Recently, the OSU Nisonger Center received funding from an external foundation for the development of a curriculum and supervised training program incorporating social determinants of health and psychological based behavioural management and communication techniques to increase empathy and improve treatment skills of predoctoral dental and dental hygiene students and practicing dentists and hygienists. The OSU Nisonger Center is a predoctoral dental and dental hygiene training site for the OSU College of Dentistry. Dr. Beetstra will give an overview and structure of the project, technologies used to train and measure communication and empathy of oral health providers, and curriculum design. Dr. Tassé will discuss the importance of utilizing a psychologically based model to improve behaviour management skills of providers and the benefits of utilizing interdisciplinary teams. Dr. Walton will discuss the importance of dental providers utilizing social determinants of health to improve

patient outcomes and discuss her experiences supervising and observing dental students in OSU Nisonger interdisciplinary clinics.

CLINICAL IMPLICATIONS

Increased access oral health access and improved health outcomes for individuals with intellectual and developmental disabilities.

Methods used to obtain funding to support provider training.

Incorporation of oral health providers into interdisciplinary teams to understand each health profession's role in improving health outcomes for individuals with IDD.

CONCLUSIONS

Dentists have an obligation to understand and refer patients whom are having issues related to the social determinants of health.

Dentists begin to participate in overall health and prevention activities and not just issues involving the oral cavity.

00100029**Orthodontic care for the disabled with regards to their quality of life****E. Glatz***Privat, Neunkirchen, Germany***AIM(S)**

The presentation will highlight the challenges of providing orthodontic care for children and young adults with disabilities.

METHODS

The orofacial malformations show a bigger diversity and grade of difficulty than in the overall population. As well as this, there are the problems with the physical and mental coping of the patients. This suggests treatment demands unusual solutions. Planning and taking records can be difficult or even not possible and the treatment may not lead to a 'perfect' result. But is even some treatment valuable? Is treating these patients socially acceptable? Does treatment improve the quality of life of these patients and how they view themselves?

RESULTS

Relatively new techniques including 'Invisalign' can expand the treatment options for this population. Can we learn from these treatments and enlarge our orthodontic knowledge about acceptable ways of dealing with the more extreme malformations?

CONCLUSIONS

Several cases are discussed. Due to the difficulties of documenting this care, very little is published about this theme. Therefore the goal of the presentation

is to inform and inspire other orthodontists to share and communicate their experiences in the hope that it may open the possibility to start a databank to record orthodontic suggestions to help our patients.

00100031**Analysis on scientific congress programs of Korean association for disability and oral health: From 2005 to 2022****H.K. Hyun, J.S. Song, Y.J. Kim, K.T. Jang***Seoul National University School of Dentistry, Seoul, Republic of Korea***AIM(S)**

The Korean Association for Disability and Oral Health (KADH) was established in 2004 and held its first academic conference in 2005. The purpose of this study is to analyse the content of abstracts of the KADH conference programs.

METHODS

Based on the abstracts of KADH program book from 2005 to 2021, the titles and contents of the symposium, oral presentations, and poster presentations were analysed. These were categorized by subject and analysed to determine which subject the relevant contents correspond to. Also, the nationality and affiliation of the presenters were analysed.

RESULTS

The KADH conference was held twice a year, mostly in spring and autumn. The 2020 spring academic conference was not held due to the covid-19 pandemic situation, and from the 2020 fall academic conference, it was held regularly as a virtual conference. Speakers from Japan and Taiwan have been steadily participating. The most types of oral and poster presentation topics by Korean participants were case reports, and the smallest were those related to oral function. On the other hand, the most types by Japanese participants were related to oral function or clinical status and statistics.

CONCLUSIONS

The quantity and quality of presentation topics at KADH conference is growing year by year. Based on these experiences, KADH will prepare well for successfully hosting iADH2024 Seoul.

00100032

Diagnosis and orthodontic therapeutic planning for persons with rare neurological diseases

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AIM(S)

This study aimed to describe in qualitative terms the orthodontic diagnosis and treatment of a group of patients with Rare Neurological Diseases (RND).

METHODS

25 patients with RND referred for orthodontic evaluation at the University of Santiago de Compostela between 2010 and 2021 were evaluated. 17 different nosological entities were detected; the most prevalent were periventricular leukomalacia (n= 3), microcephaly (n= 3) and Rett syndrome (n= 3). Anatomical (dento-skeletal) and functional oral manifestations, and the characteristics of the orthodontic treatment were recorded for each patient. A control group of patients without systemic pathology referred for orthodontic evaluation, paired by sex and age range, was established. To analyse and compare the results, the chi-squared test, Fisher's exact test and Wilcoxon rank-sum test were applied. This study was approved by the Ethics Committee of the University of Santiago de Compostela (Spain).

RESULTS

The variables with a prevalence $\geq 25\%$ in the RND group and that were significantly more frequent in the RND in comparison with the control group ($p < 0.05$) were: dolichofacial pattern, overbite, oral breathing, atypical swallowing, lingual interposition, labial incompetence, muscle hypotonia and bruxism. 11 patients (44%) with RND did not start treatment, mainly due to

the lack of collaboration. Compared with the control group, 14 patients with RND who underwent orthodontic treatment required more desensitization sessions (50% vs 4%), used mixed appliances (fixed and removable) more often (28% vs 5%) and had more frequent complications such as gingivitis (35% vs 15%), recurrent debonding of the device (42% vs 13%), device breakage (35% vs 4%), and temporary treatment suspension (35% vs 9%).

CONCLUSIONS

For selected patients with RND, it is feasible to perform orthodontic treatment, whose planning will be determined mainly by oromotor dysfunctions. Although complications are more frequent, they can typically be solved without having to stop treatment.

00100033

Anthropometric criteria that alert for malnutrition risks and inconsistent food texture in older subjects with dementia: A cross-sectional observational study

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AIM(S)

Usually, oral health indicators are collected to alert for infectious disease and pain during general health screening of older people with dementia. The impact of poor oral health on nutritional status is often neglected. This study aims to explore the links between the number of posterior functional dental units (PFUs) and indicators of malnutrition and whether the number of PFUs is considered when adjusting the type of food texture during meals.

METHODS

It was a cross-sectional observational study. People aged 70 years and over with dementia were recruited from seven institutions in Lebanon. Sociodemographic characteristics, type and route of feeding, number of chronic diseases, drug intake, oral dryness and results of biological examinations performed during the last 3 months were collected. Resident dependence was assessed using the Activity of daily living index. Anthropometric measurements used to evaluate the nutritional status and oral health were the middle upper arm circumference (MUAC), and the number of PFUs respectively. Univariate analyses followed by logistic regression analysis were performed to assess the factors associated with the dichotomized MUAC (<21; ≥21cm).

RESULTS

One hundred and three participants aged 83.90 ± 8.74 years were recruited. Concerning the nutritional status, 24.3% had a MUAC less than 21cm, and 34% had a hypoalbuminemia. Concerning the oral health status, 76.7% had dry mouth, 64.1% presented a poor oral hygiene or $\text{PFU} \leq 4$. MUAC was associated with the number of PFU (OR=10.1; $p=0.036$). Other associations were found with albumin (OR=24.8; $p=0.001$), modified food texture (OR=4.2; $p=0.035$) and duration of stay in institutions (OR=7.8; $p=0.033$). However, PFU was not associated with type of oral feeding ($p=0.487$).

CONCLUSIONS

Similar to MUAC, the number of PFU could be an oral anthropometric criterion collected during routine hygiene care to alert for malnutrition risks and inconsistent food texture in older individuals with dementia.

00100035

Floating-Harbor syndrome: Important treatment considerations for the dental team

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CASE DESCRIPTION

Floating-Harbor syndrome (FHS) is a rare condition with few cases reported in the medical literature. It is an autosomal dominant condition with affected individuals carrying a pathogenic variant of the SRCAP gene. It is understood that individuals with FHS can have consistent facial features; 'triangular shaped face', with deep set eyes, low set ears, prominent nose with a wide broad base, large nostrils, and short philtrum. This case reports the clinical findings of an individual with FHS and his dental management at a London teaching Hospital.

CLINICAL IMPLICATIONS

Individuals with FHS have a spectrum of differing IQ levels with mild to moderate intellectual disability reported. Capacity assessment is imperative to ascertain consent. Patient in this case study was non-verbal however displayed good understanding and cooperation with the use of an interpreter. Patient was able to communicate with non-verbal cues. Inhalation sedation was recommended to improve patient's acclimatisation, however, due to the 'triangular' facial morphology, application of a nasal hood was proven unsuccessful. The nasal hood fitted poorly around patients' nasal contours, severely restricted movement of his upper lip and patient found it challenging to breathe solely through his nose. Dentally the patient had a retained deciduous tooth, spacing of teeth, plaque-induced gingivitis, and generalised hypo-mineralisation. With behavioural management, the patient was able to receive high quality dental care without sedation. Tailored preventative care and education was reinforced to prevent dental disease.

CONCLUSIONS

FHS is a very rare genetic syndrome. Learning disability is reported as part of the syndrome however the severity varies between patients. Capacity must therefore be assessed prior to dental care being mindful that capacity is time and treatment specific. It is important that further clinical findings and anatomical features of this syndrome are presented to improve understanding and allow delivery of safe, high-quality dentistry.

00100036

Procedural sedoanalgesia in paediatric dental surgery during Sars Cov2 pandemia

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AIM(S)

This study assessed the analgosedation protocol used for urgent and elective dental surgical procedures in uncooperative paediatric patients. The aim of this study was to investigate the efficacy and safety of sedoanalgesia performed outside the operating room by paediatricians trained in advanced airway management, life support and use of drugs for analgosedation in the two-year period 2020-2021.

METHODS

All paediatric patients with surgical dental disease referred to Dental care or Paediatrics emergency unit were enrolled. Elective dental surgeries were performed on an outpatient basis two days/week on an average of 6 patients/week. Urgent procedures were performed during hospitalization in Paediatric Ward. Surgical procedures were performed after acquiring Informed Consent for both analgosedation and dental therapy. Amoxicillin-clavulanic acid was administered for three days prior to surgery in case of uncomplicated dental infection; while Clindamycin was added in case of soft tissue infection. All patients received moderate sedation for 15-20 minutes under cardiorespiratory monitoring (six score Modified Ramsey Scale) with midazolam and ketamine parenterally.

RESULTS

203 children were enrolled, median age 5.3 years, (107 male, 96 female). Odontogenic infections (facial cellulitis, mandibular swellings, acute odontogenic abscess with fever and swelling, apical periodontitis, recurrent

dentoalveolar abscess) accounted for 94,6% procedures. No major complications were reported; one child presented vomit and another one cough after procedure, both with rapid resolution after medical treatment. All children reported amnesia and all caregivers expressed high satisfaction. In children with "special needs" pain score on the Modified FLACC Scale resulted zero. No outpatient needed admission to the paediatric ward nor did inpatients require an extension of hospitalization.

CONCLUSIONS

Procedural sedation and analgesia performed by trained paediatricians represents an effective way to manage dental procedures in uncooperative paediatric patients without significant side effects, resulting in high satisfaction from the family and economic saving, in terms of resources and length of hospitalization.

00100037

Comparison of dental plaque flora in intellectually disabled patients and healthy individuals – cross-sectional study

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AIM(S)

Individuals with intellectual disability (ID) have a high prevalence of periodontal disease including gingivitis, which can be difficult to treat because of lack of patient cooperation. This study evaluated differences in oral bacterial flora between patients with ID and healthy controls to facilitate development of strategies for periodontal disease prevention in individuals affected by ID.

METHODS

Individuals with ID (n=16) and healthy controls (n=14) underwent an oral examination with dental plaque collected. DNA extracted from dental plaque was then subjected to next-generation sequencing. This study was approved by the ethics committee of our institution (Epidemiology-No. E-342).

RESULTS

The results showed significant differences in median papillary-marginal-attached index, plaque index, and gingival index between the groups ($P < 0.0001$). Mean probing depth in the ID group was significantly greater ($P < 0.0001$). Furthermore, oral flora diversity in individuals with ID and concurrent gingivitis was significantly lower than that in the healthy subjects without gingivitis.

Additionally, the relative abundance of *Tannerella* spp. and *Treponema* spp. at the genus level was significantly greater in the ID than in the control group ($P = 0.0383$ and 0.0432 , respectively), whereas that of *Porphyromonas* spp. was significantly lower in the ID group ($P < 0.0001$).

CONCLUSIONS

The diversity of oral bacterial flora in individuals with ID with gingivitis was found to be significantly less than that in the healthy controls, while there were significant differences regarding relative abundance of some periodontal disease-causing bacteria between the groups. Overall, our findings provide important insights into differences regarding oral microbiota between patients with ID and healthy individuals.

00100038

Use of oral conscious sedation for the dental care of children with psychiatric disorders

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AIM(S)

To demonstrate the safety and effectiveness of oral conscious sedation with midazolam in children with different disabilities in combination with other behaviour strategies provided by experienced paediatric dentists in a well-controlled environment, thereby avoiding dental general anaesthetic.

METHODS

472 children were treated at the Special Care Service during 2018-2019 with a diagnosis of intellectual deficiency of whom 381 (80.72%) presented generalized developmental disorder without other associated systemic pathology. The Frankl scale was used to determine the degree of cooperation and communication. Patients were treated with midazolam 0.5 mg/kg body weight by the Paediatrician. Vital parameters (pO_2 , pulse and pressure) were monitored. Furthermore, restrictive techniques were applied by parents.

RESULTS

Patients were evaluated using the Houpt scale to determine the degree of sedation and it was observed that the vital parameters were kept within normal values. As the treatment progressed, the use of oral sedation was not necessary because of the improvement in the child's behaviour. 15.04% (71 children) needed dose adjustments and 5.08% (24) the sedative effect was not achieved.

CONCLUSIONS

The use of conscious sedation in Argentina is very useful to avoid general anaesthesia, which is the most used modality for the care of children with psychiatric disorders.

00100039**Integration of teaching undergraduate dental education – public dental care service: Implication for special needs population****C.O.A. Amaral, A.P. Parizi, A.O. Oliveira, G.L. Logar, F.S. Straioto***Noeste: Universidade Do Oeste Paulista, Presidente Prudente, Brazil***AIM(S)**

The aim of this experience report is to demonstrate the integration between teaching of undergraduate dental education of the Special Needs Department and the dental public service. Both services have an objective to contribute for improvement the promotion of health and quality of life of people with disabilities. This process offers an opportunity to develop humanitarian spirit behaviour in the students of the Dentistry course in accordance with the National Humanization Policy in health and Curriculum Guidelines for the Undergraduate in Dentistry in Brazil.

METHODS

This course aims to teach the undergraduate in dentistry: to be, to do, to live together and to know. The proposal of this integration between the dental care service in the Graduation Course in College of Dentistry (UNOESTE – University of Western Sao Paulo, Presidente Prudente, São Paulo, Brazil) is to develop skills and competence in the student for the future preparing the professional for this approach. The undergraduate can learn to realize the approaches with empathy, behaviour management, multi-professional treatment, and preventive procedures associated with educational actions. Learning about preoperative, intraoperative and postoperative care (PIP) of patients is fundamental.

RESULTS

This integration: by Graduation and Public Dental Care covered 45 cities belonging the Regional Health Directorate DRS-11 and 10 assistance entities, with supervised and guided care by teachers of Course of Patients with Special Needs. The service performed around 2000 procedures per year.

CONCLUSIONS

Dental care for special patients requires specific knowledge that can be acquired during graduation, impacting in the public policies for access to health services for special patients with excellence. Even though Brazil has legislation that guarantees people with disabilities the right to access health care, the gap in professionals specialized in the area occurs both in private dental care and in the public dental service.

00100040**Aboriginal community controlled health services:
An act of resistance against Australia's neoliberal
oral health system****B. Poirier, J. Hedges, L. Jamieson***Australian Research Centre for Population Oral Health, Adelaide Dental School, University of Adelaide,
Adelaide, Australia***AIM(S)**

The individualistic and colonial foundations of neoliberal socio-political ideologies are embedded throughout Australian health systems, services, and discourses. Not only does neoliberalism undermine Indigenous collectivist beliefs and values by emphasising personal autonomy, but has significant implication for Indigenous health, including oral health. Regrettably, in Australia, Aboriginal and Torres Strait Islander peoples bear a disproportionate burden of oral disease. Aboriginal Community Controlled Health Services (ACCHS) reflect community oriented holistic understandings of wellbeing that contradict neoliberal values that modern oral health services operate within. Therefore, this paper aims to explore the role of ACCHS in resisting the pervasive nature of neoliberalism and demanding oral health equity for Aboriginal and Torres Strait Islander peoples.

METHODS

This critical review was conducted from the metatheoretical perspective of critical realism and framed by decolonising theories. Utilising peer-reviewed and grey literature, including community resources, this review synthesised evidence that documents the history of ACCHS development against the development of neoliberalism in Australia.

RESULTS

Aboriginal political leadership and health advocacy during the 1970s and 1980s paralleled the development of neoliberalism in Australia. The ACCHS movement and establishment of services across Australia are the only remaining government funded and Aboriginal controlled organisations. Not only do ACCHS models resist neoliberal ideologies of reduced public expenditure and dominant individualistic models of care, but they have been proven to strengthen individual and community health.

CONCLUSIONS

We assert that ACCHS remain the gold standard model that ensures Aboriginal and Torres Strait Islander rights to self-determination of health, in accordance with the United Nations Declaration of the Rights of Indigenous Peoples. We argue that increased funding that ensures the provision of oral health care across all ACCHS in Australia is necessary to truly close the oral health gap and ensure equitable health outcomes for all Aboriginal and Torres Strait Islander people.

00100041

Dental hygienist-administered cognitive behavioural therapy in special care dentistry

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CASE DESCRIPTION

Dental anxiety can be a significant barrier to access to dental treatment, particularly for people with multiple impairments. Delaying or avoiding dental treatment can eventually result in the patient's impaired oral health and quality of life. As a result, many complex dentally anxious patients are managed through conscious sedation or general anaesthesia. This can be restrictive and costly for the patient and dental services. One sustainable solution for overcoming these issues can be an implementation of cognitive behavioural intervention delivered by dental auxiliaries. In this case we present the use of Cognitive Behavioural Therapy (CBT) by a dental hygienist to overcome dental anxiety in a complex patient.

A 33 year-old woman with a history of Schizophrenia and depression was referred by her GDP to the Special Care Unit in Dublin. Patient had a history of dental phobia and irregular dental attendance. On examination, it was revealed that patient needed 16 fillings, a root canal and an extraction. The indicator of sedation need was applied (IOSN=9). As a result, the patient was judged to need conscious sedation. While awaiting a sedation appointment, a programme of CBT was trialled and initiated by a dental hygienist.

CLINICAL IMPLICATIONS

CBT has structured patient-centred approach. The CBT sessions involved assessment, goal setting, case formulations and take-home tasks. At baseline (MDAS=22/25), the patient identified a fear evoking hierarchy of stimuli. By the 3rd session, the patient was able to receive a local injection administered by the dental hygienist. There were in total of 4 CBT sessions delivered with an increase in ability to tolerate treatment and lower MDAS (12/25) score.

CONCLUSIONS

This case reflects the growing literature in favour of providing CBT by dental auxiliaries. This is feasible and potentially cost-effective way of improving oral health in complex dentally anxious patients.

00100042

Management of a patient with schizotypal personality disorder

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CASE DESCRIPTION

A 68-year-old patient with schizotypal personality disorder presented as a new patient, requiring extractions and partial dentures. Management and treatment were challenging at each appointment, due to the patient's unpredictable behaviour change at each appointment.

CLINICAL IMPLICATIONS

The patient wanted a replacement for her unretentive upper partial acrylic denture. She also required extractions of the carious UL78. Medically, the patient was living with COPD, history of alcoholism, cerebral atrophy, depression, and anxiety. A mental capacity assessment was completed, and the patient was deemed to have capacity to consent.

The patient's mood would fluctuate at each appointment and compliance would be dependent on this. Breathing techniques were used to help the patient relax. The patient was informed about each step involved with the treatment and given breaks. Due to the frequent COPD exacerbations, the denture work was delayed on multiple occasions. She was treated upright at each appointment as she was not able to lie supine due to COPD and a shoulder injury.

CONCLUSIONS

This case demonstrates the supportive approach that is required to build rapport with a patient. It also demonstrates that treatment may need to be adapted on the day for the patient depending on their behaviour and mood.

Support workers or chaperones who accompany the patient are vital as they can give helpful suggestions that can assist with patient management. With patience and good communication, the patient was able to have all her treatment completed successfully.

00100043

Understanding the oral health from the point of view of adults with disabilities and complex medical conditions: A scoping review

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AIM(S)

This study aimed to review and summarise the scientific literature in qualitative research about the experience of oral health amongst adults with disabilities or complex health conditions.

METHODS

A scoping review methodology was applied in accordance with the methodological framework of Arksey & O'Malley and with the PRISMA-SCR checklist. Electronic searching was performed using the databases Pubmed, Embase and PsychInfo. The key search word strategy was deliberately broad in order to provide the most in depth-coverage of the available literature.

RESULTS

A total of 2915 articles were identified. Thirty articles were included in the final selection. There was a great heterogeneity of the populations included in the selected studies: participants or their relatives; elderly people with comorbidities, survivors of stroke, individuals in remission from cancer of the orofacial sphere or in palliative care, people with cardiovascular disease, dementia, mental disorder, cognitive or physical disabilities. Three major themes related to the experience and understanding of the mouth, oral health and function were highlighted in the review: the representation of oral health, the influence of oral health on the participants' life and the influence of the socio-environmental

context on oral health. No study addressed the functional, social and psychological role of the mouth in a comprehensive manner.

CONCLUSIONS

The perception of the mouth and oral health were understood differently depending on the interviewees. It was described as dependent on the socio-environmental context. However, outside of the experience of dental care services, this context was little explored. This scoping review demonstrates that there is little research on the exhaustive understanding of the dimensions of the mouth.

00100044

The perception of oral health among care staff in residential care organizations for people with disabilities in Flanders (Belgium)

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AIM(S)

People with disabilities in residential care often depend on care staff for their oral health. In 2018, a survey assessing the perceptions about oral health and oral care delivery was carried out among residential care managers and staff in Flanders. The current study aimed to assess the needs around oral health in residential care in-depth.

METHODS

Eight focus groups were conducted between November 2019 and November 2020 in three waves. Sampling of the waves was driven by findings obtained during the process. In the first wave, three focus groups were organized with predominantly (para)medical staff (e.g. nurses and speech therapists) of different residential care organizations. To also explore the perceptions of care staff carrying out daily oral healthcare (e.g. nurse aids and care workers), a second wave with three additional focus groups was conducted. Finally, findings were supplemented with two groups focusing on caregivers of home care organizations (third wave). All focus groups were recorded and transcribed verbatim in Microsoft® Word. Data were analysed in NVivo applying inductive

thematic analysis. The study was approved by the Ghent University Hospital ethics committee under national registration number B670201941973.

RESULTS

A total of 39 participants were included in the study. Daily oral healthcare was performed by both care staff of the residential organization and caregivers of home care organizations. Deficient communication between all parties involved was found to be a barrier of care continuity. Furthermore, there were few opportunities for oral health education and skills training. Care staff also reported barriers visiting oral healthcare professionals (dentist/dental hygienist).

CONCLUSIONS

Care staff perceive barriers for both carrying out daily oral healthcare and referral to professional oral healthcare. Oral health promotion initiatives in residential care for people with disabilities should at least focus on these two aspects of oral health.

00100045

Quality of teeth matters too – a possibly new symptom in MED13L syndrome

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CASE DESCRIPTION

MED13L-syndrome is a rare genetic condition characterized by developmental delay, intellectual disability and minor differences in facial features. Amelogenesis imperfecta is a rare genetic developmental disorder affecting dental enamel.

CLINICAL IMPLICATIONS

A 2-year old girl presented with severe dental breakdown and received prompt treatment, including several extractions, under general anaesthesia. Clinical appearance of the extracted teeth was more reminiscent of mineralization disorder than caries so the teeth were analysed by an oral pathologist. However, due to severe breakdown of the tooth crowns, it was impossible to diagnose any other pathology than dental caries.

When the girl was four years old, two new primary teeth erupted, both with severely affected enamel. They were extracted immediately after eruption, and this time, the anatomical pathology analysis showed amelogenesis imperfecta - hypomaturation type.

Besides problems with her teeth, the girl had delayed development and a different facial appearance. After extensive clinical investigations at the Child Habilitation Centre and genetic examination, she was diagnosed with MED13L-syndrome at seven years of age. Amelogenesis imperfecta has not earlier been described in connection with this mutation and may be a newly discovered symptom in MED13L syndrome.

Preventive dental treatment with frequent visits since early age, has resulted in good oral hygiene and remaining primary and erupting permanent teeth are caries free, despite general enamel hypomineralization. All teeth have clinical signs of amelogenesis imperfecta, but so far without tooth breakdown.

CONCLUSIONS

This report highlights the importance of perseverance when searching for explanations to clinical problems. It also shows that, even if amelogenesis imperfecta is not a known part of this particular syndrome, the dentist has a role in the multidisciplinary diagnostic team of rare disorders. Finally, it illustrates the necessity of intense and targeted preventive measures to stop negative outcomes.

00100046

One-wing resin-bonded bridges for anterior tooth replacement on patients with disabilities

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CASE DESCRIPTION

There are few reports available about the possibility to close gaps in the anterior front of persons with learning disability with the aid of a resin-bonded one-wing bridge (OWRBB). This therapy was applied between 2017 and 2021 in three persons. Patient A had a cerebral palsy and loss of 21 by anterior trauma, patient B had the Down Syndrome and non-development of 12 and 22 and loss of 41 due to severe periodontitis (B), and patient C had an early childhood autism with learning disability and loss of 31 due to carious destruction. In all three cases, a tooth adjacent to the gap was prepared minimally invasively and the impressions were taken with a polyether (Impregum™) and whole tray. Bonding of the fabricated bridges was performed with a dual-curing luting composite (Panavia™) with the aid of a custom-made insertion aid. During all treatment steps the patients were awake but the ritualized behavioural guidance technique was applied.

CLINICAL IMPLICATIONS

Compared to conventional bridges the fabrication of one-wing resin-bonded bridges has many advantages: only one abutment tooth needs to be prepared, no temporary restoration needs to be fabricated, the treatment times on the patient are much shorter, equivalence in terms of aesthetics and dental care is given. Furthermore, these advantages distinctly reduce the necessity for treatment in general anaesthesia provided the dentist is able to apply the ritualized behavioural guidance technique. Nevertheless, an important limiting factor of OWRBB is the fact that only one tooth can be replaced with this procedure.

CONCLUSIONS

In certain cases, one-wing resin-bonded bridges are well suited for patients with learning disability. The cause for the tooth loss does not play a role. In some cases, the placement of a dental implant and/or treatment under general anaesthesia can be avoided by fabricating OWRBB.

00100047

Salivary flow and its impact on periodontal disease in patients with rheumatoid arthritis

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AIM(S)

To determine the degree of periodontal disease and the rate of salivary flow in patients with rheumatoid arthritis (RA) and compare them with those of the general population.

METHODS

The study that was carried out was a cross-sectional, observational study, which included consecutive patients with RA according to ACR/EULAR 2010 criteria and a control group of people from the general population without known inflammatory rheumatic disease. Periodontal disease was assessed according to the American Academy of Periodontology (1999) and chronic periodontitis was assessed by full-mouth periapical radiographic examination, periodontal probing depth, clinical attachment level, and bleeding index. Resting and stimulated saliva (RSF, SSF) was collected over 5 min and expressed in ml/min. The results were expressed as mean \pm SD. A value of $p < 0.05$ was considered statistically significant.

RESULTS

A total of 209 subjects were included, 111 patients with RA and 98 controls, with no significant differences in sex (females/males=6) and age (48 ± 12 years). Salivary flow was lower in RA group: RSF 0.2 ± 0.1 vs 0.5 ± 0.2 ($p < 0.001$) and

SSF 0.7 ± 0.3 vs 1.1 ± 0.3 ($p < 0.001$). Also, hyposalivation (RSFE0.15) was more frequent in RA group: 27.2 vs 6.5 % ($p < 0.001$).

RA group had higher prevalence of severe periodontitis: 16.0 vs 4.4 % ($p < 0.001$). Among RA patients there was no association between RSF, SSF or hyposalivation frequency and their periodontal status. In control group, people with periodontitis (any grade) had lower SSF: 1.0 ± 0.2 vs 1.2 ± 0.3 ($p = 0.01$).

CONCLUSIONS

Resting and stimulated salivation was decreased in RA patients with or without periodontal disease. Control people with periodontitis showed a reduction in their stimulated salivation.

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00100048

Dental care for individuals with Williams-Syndrome in Germany

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AIM(S)

Williams-Syndrome (WS) is a rare genetic multisystemic neurodevelopmental disease characterized by cardiac defects, cognitive and developmental abnormalities, failure to thrive, hypersensitivity, hypodontia, microdontia, and micrognathia. The risk of an adverse cardiac event during general anaesthesia (GA) is high. In the last years it has been recommended to carry out treatment in GA in facilities with intensive care capabilities. This study aimed to determine patient needs and barriers for individuals with Williams Syndrome (I-WS) regarding access to dental care and previous treatments in GA.

METHODS

All 650 custodians enlisted in the German WS association received a paper-pencil questionnaire in March 2021 and were asked to return the completed questionnaires anonymously. The Witten/Herdecke University Ethics Committee gave positive consent to this study (S293/2020). The data were entered into a MS Excel file and analysed descriptively in SPSS.

RESULTS

In total, 228 custodians (33.0%) returned the fully completed questionnaire. The age of I-WS ranged between 0 - 60 years (mean: 20.5, SD: 12.8) and 49.1% of them were men. The majority of the caretakers (62%) reported regular good compliance during all types of dental treatment. The most frequent types of dental treatment in an awake state were teeth cleaning (52.9%), direct restorations (30.7%), and fissure sealings (36.7%). One third of

the I-WS (31.5%) experienced treatment in GA at least once in their life and 42.5% of these treatments were administered in offices without inpatient capabilities. Only one in ten I-WS received teeth cleanings or fissure sealings (9.9% each) in GA. Primary indications for GA was removal of teeth or wisdom teeth (38.1% each).

CONCLUSIONS

In general, individuals with Williams-Syndrome receive dental treatment and preventive care in awake state. For surgical treatments, it is often necessary to undergo general anaesthesia which too often has taken place in outpatient treatment settings, notwithstanding the high risk of cardiac complications.

00100049**Orthodontic management of ectopically erupting maxillary central incisor in a patient with Autism. A case report****H. Song, Y. Kim, S. Park***Purme Foundation Nexon Children's Rehabilitation Hospital, Seoul, Republic of Korea***CASE DESCRIPTION**

This case report presents orthodontic treatments of 7-year-old female with autism in outpatient settings. Dental treatments were given to the patient under general anaesthesia for extensive caries lesions with all primary molars about one year before this case. Patient was treated in outpatient settings for regular dental prophylaxis applying behaviour management. Delayed and ectopic eruption of upper right central incisor was observed during the follow-ups, and parents reported a history of intrusion injury to the primary teeth. The radiograph showed that the central incisor was displaced labially and the space loss continued. Since the patient's behaviour in the clinic became more cooperative than before, we decided to proceed with orthodontic treatments without general anaesthesia. Slow palatal expansion was performed using bonded hyrax expander with labial bow and a soldered hook. Incision was made at the labial gingiva of impacted incisor to expose the labial surface, and a button was attached to guide eruption. However, the button fell off frequently and BandLok(TM) loss was observed. Removable active plate was applied, and while it took the patient 2 months to accept the appliance; with the continued support of the parents, the patient gradually adapted, and then space regaining was completed. The arrangement was completed and maintained using the 2 by 4 and PreOrtho(TM) T3 myofunctional appliance.

CLINICAL IMPLICATIONS

Cooperation for dental treatments by children with autism is difficult to predict, limiting the application of typical methods and duration. Nevertheless, the timely restoration of the maxillary central incisor and good

teeth alignment are important both aesthetically and functionally, especially for oral hygiene.

CONCLUSIONS

Case reported here proves that treatments can be given to patients with special needs when the easier-to-wear appliances are used with myofunctional therapy. Desensitization and behaviour management were crucial in the treatment of the patient in outpatient settings.

00100050**“[The dentist] just kind of gets on and does it”
Exploring the experiences of dental care decision
making with or for people living with dementia****A. Geddis-Regan¹, R. Wassall¹, C. Abley², C. Exley²**¹*School of Dental Sciences, Newcastle University, Newcastle Upon Tyne, United Kingdom*²*Population Health Sciences Institute, Newcastle University, Newcastle Upon Tyne, United Kingdom***AIM(S)**

To explore the perspectives and experiences of people living with dementia (PLwD) and their family caregivers regarding dental care decision-making.

METHODS

Remotely conducted semi-structured one-to-one interviews were undertaken with PLwD or family caregivers. Participants were recruited through invitations in dental clinics, self-identification, and a research database. A maximum variation purpose sample was sought. Qualitative data collection and analysis occurred concurrently and a constructivist grounded theory approach was adopted. Data underwent initial open coding and then more focused coding. Iterative categorisation of data led to a theoretical understanding of dental care decision making with or for PLwD.

RESULTS

Interviews were completed with 8 PLwD and 17 family caregivers between April 2020 and March 2021. Three key categories were identified: 1) wanting to be understood, 2) wishing to be involved and 3) hopes and outcomes for care. PLwD and family members felt dentists often failed to understand dementia, its impact on each person and the support they may need with decision-making and accepting dental care. PLwD reported wanting to be actively involved in decisions about their care, and family members wanted to be consulted

when decisions were being made on behalf of the PLwD they supported. Both PLwD and carers, however, felt they were insufficiently involved in decisions made about their care or the care of PLwD. Such under-involvement meant that the outcomes that PLwD or family members desired were not ascertained to inform decisions made about dental care.

CONCLUSIONS

The accounts of PLwD and family members suggest that they often have a passive role in decision-making. Whether or not PLwD can consent for their care, dental teams should actively seek to understand what matters to each PLwD. Seeking such insight can ensure dental care decision-making is aligned with patients' values and preferences regardless of their cognitive status.

00100051**Family role in the success of comprehensive treatment of a patient with Autism Spectrum Disorder: About a case with 4 years follow-up****T. Droppelmann, C. Godoy, D. Drapela, A. Ormeño, V. Jadue***Facultad De Odontología Universidad De Los Andes, Santiago, Chile***CASE DESCRIPTION**

Male patient, 7 years 8 months old, Frankl 1, Autism Spectrum Disorder, obesity, history of dental treatment under general anaesthesia at 2 years old, mixed dentition, high cariogenic risk in caries activity (ceod: 8), biofilm-associated gingivitis, multiple caries, anterior cross-bite.

CLINICAL IMPLICATIONS

Patient attends the paediatric dentistry clinic of “Universidad de los Andes” accompanied by his grandmother, requesting comprehensive dental treatment. After behaviour guidance sessions, due to the inability of the patient to cooperate and the urgency of the treatment, it was decided to perform rehabilitation procedures under general anaesthesia, carrying out multiple extractions, pulpectomies and restorations. Periodic controls were maintained during the following year, in which education was mainly performed for the family nucleus, involving them in maintaining their health, which includes managing habits, instruction and motivation in oral hygiene, dietary advice and referrals to a nutritionist, occupational therapy and speech therapy. We achieved cooperation from the patient, allowing himself to be brushed with an electric toothbrush and toothpaste, progressing in the incorporation of new textures in his diet and making it healthier. It was possible to motivate and empower the family nucleus to adopt the habit of regular dental check-ups and the role of the parents in the behaviour guidance and treatment sessions.

Two years later, due to perseverance and commitment from the minor’s family, orthodontic treatment is installed with a Hawley plate, obtaining treatment adherence and satisfactory results.

CONCLUSIONS

It is very important to involve the family nucleus in the comprehensive treatment of the patient, empathizing with their realities and individual family dynamics. For this reason, oral health education manoeuvres must be adapted to the special health needs of each patient, in order to provide quality care and treatment that is predictable and with good prognosis over time.

00100052

How to deal with rehabilitation and orthodontic treatment in a patient with down Syndrome? a case with 7 years follow-up

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CASE DESCRIPTION

A Female patient, 6 years old, with Down Syndrome, hyperthyroidism, mixed dentition, high cariogenic risk, in caries activity (ceod: 10), biofilm associated gingivitis, multiple caries, anterior cross bite presented to the dental clinic. Her behaviour was Frankl 1, however it was necessary to use a conventional approach on dental chair. It was determined that her systemic conditions made it impossible to be treat her safely under general anaesthesia.

CLINICAL IMPLICATIONS

Permanent behavioural guidance was performed on the patient, adapted to her condition. Among the intervention strategies used was animal-assisted therapy, education of the family in healthy habits, brushing and dietary advice, respecting and empathizing with their dynamics and realities. Rehabilitative treatment was performed with protective stabilization by the responsible adult and glass-ionomer-based restorations. She underwent periodic controls, in which oral hygiene and preventive manoeuvres were reinforced, accompanying her in her growth and dental replacement process. Three years later, orthodontic treatment was performed based on a rapid maxillary expansion and facial mask for one year, in multidisciplinary work with an orthodontist.

In these 7 years of treatment, we have sought to adapt dental care to the needs and abilities of the patient, achieving her cooperation, her cariogenic risk has dropped to moderate with adequate oral hygiene and COPD of 0 in her last controls. Orthodontic treatment was well tolerated, and excellent adherence was achieved, managing to evolve a negative overjet (-2) and a Canine Angle Class III to a 4mm positive overjet and a Canine Angle Class I.

CONCLUSIONS

To face the comprehensive treatment of an individual with Down Syndrome, it is important to adapt the behaviour management measures to each patient and their family. Individual realities and dynamics must be understood, empathizing with the difficulties they face on the daily life, in order to form a dentist-family-patient team and contribute to the quality of life of both, the child and her family.

00100053

Analysis of an oral health self-assessment tool using video conferencing for special olympics (SOBC)

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AIM(S)

Due to COVID-19, the in-person Special Olympics British Columbia (SOBC) Special Smiles program for athletes living with an intellectual disability (ID) was adapted to a 75-minute Virtual (ZOOM) Special Smiles Self-Assessment Program (VSSAP). This pilot survey evaluated the VSSAP in supporting athletes in self-identifying unmet dental needs and assessing the attitudes and intended behaviours of oral health professionals (OHPs) with supporting these individuals.

METHODS

The SOBC athletes and OHPs, including dental/hygiene students, consented to the ethics-approved University of British Columbia surveys adjusted from the iADH toolbox. The OHPs pre and post-VSSAP surveys measured their attitudes and intended behaviours, and athletes' post-survey measured satisfaction, ease of use, communication effectiveness, and usefulness. Data was analysed via descriptive statistics. The power sample calculation in reaching data saturation is 36 athletes and 28 OHPs. Virtual sessions commenced in August 2021 and data collected until June 2022 for a total of eight sessions.

RESULTS

42 athletes and 15 OHPs participated in the VSSAP in 2021-22 with a 31.0% and 46.7% response rate for athletes and OHPs, respectively. Data saturation

was not met for OHPs. Of the athletes, 58.3%; n=7 strongly agreed they could effectively express their dental concerns and that the session met their dental needs, and 75.0%; n=9, learned something new. OHPs, n=7 scored highest in the outcome evaluations category (pre: 18.9 + 1.68; post: 18.8 + 3.19), translating to highly valuing positive outcomes when providing virtual care; and scored lowest in the subjective norms (pre: -2.71 + 15.5; post: 1.20 + 10.5) and normative beliefs (pre: -0.29 + 14.5; post: 1.80 + 8.64) categories.

CONCLUSIONS

The UBC pilot study reveals that the VSSAP supports the SOBC athletes in self-identifying unmet dental needs and that OHPs changed their beliefs and attitudes following training and experience from this program.

00100054**Gorlin syndrome: A case report****E.S. Afraz, S.H. Taheriroudsari***Semnan University of Medical Sciences***CASE DESCRIPTION**

Gorlin–Goltz syndrome (GGS) is an inherited rare multisystemic disease that affects different organs in the body. People with this disorder have a very high risk of developing basal cell skin, medulloblastoma, and other types of cancer. Gorlin syndrome may also cause benign (not cancer) tumors in the jaw, heart, or ovaries. This review includes a Gorlin syndrome case report that was diagnosed with jaw lesions.

A male patient aged 27 years was referred to the Department of Oral medicine with a chief complaint of pain in the left side of the upper and lower jaws. On Radiography, multiple jaw lesions were found on both sides of the maxilla and the right side of the mandible. He had no other clinical and radiographic signs like hypertelorism and bifid ribs. Because of the multiple jaw radiolucencies, he was suspected to be involved in Gorlin syndrome.

CLINICAL IMPLICATIONS

For confirming this diagnosis other relative signs were assessed. Some skin lesions like nevus were found and then He was referred to a dermatologist for a skin biopsy. The biopsy shows multiple Basal cell carcinoma and the diagnosis of Gorlin syndrome was confirmed. Since this is a hereditary disease so his family was requested to assess it. One of his nephews who is 14 years old also was recognized as a syndromic patient and treatment was started for both.

CONCLUSIONS

Dentists can play an important role in the detection of undiagnosed conditions if they pay enough attention to examinations. All dentists must have information about the oral manifestation of systemic disease and syndromes.

00100055

Child abuse in a patient with disability: A multidisciplinary approach apropos of a case

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CASE DESCRIPTION

Female patient 12 years and 2 months old, Frankl 3, at social risk, with pervasive developmental disorder (PDD) presented to the dental clinics. She had a complete permanent dentition, high cariogenic risk, (CPOD=2), Plaque-induced generalized gingivitis, and 1.1 fracture due to dentoalveolar trauma (DAT) with discolouration. Orthodontically the patient had a Class II bite, diastemas, agenesis 1.2 and 2.2 and rotations. Phono audiological alterations.

CLINICAL IMPLICATIONS

Patient presented with her aunt to the Universidad de los Andes paediatric dentistry clinic with a complaint of dental caries. Her companion reported that the minor has suffered from Asperger's syndrome, information which was later denied by the mother and aunt herself. However further investigation into inconsistencies in history revealed that the minor was victim of physical and psychological domestic violence by the father, and being a visual witness of serious abuse against her mother. Patient shows psychomotor retardation, shyness, rigid ideas, and repetitive behaviour patterns, avoiding eye contact. The patient attends psychological therapy due to dependency on her caregiver and constant search for approval. Dental consultation adaptation was made, due to fearful and submissive behaviour. A scan of 1.1 reveals external resorption by replacement, not treatable with endodontics, is diagnosed

with the possible loss of the tooth in the future. It is decided to be controlled pending development completion for placement of osseointegrated implant. One year later, the patient shows improved behaviour, autonomy, and care for her oral health, which enables a orthodontic therapy to correct dentomaxillary anomalies.

CONCLUSIONS

Health care must be globally understood. Multidisciplinary work is very important to guarantee the fundamental rights of the child, despite the existence of situations where those rights are violated.

00100056**Speech therapy care in the dental office:
Behaviour management, referral and treatment of
suspected autism spectrum disorder patient****C. Velasco¹, D. Garay², C. Pérez De Arce², D. Drapela³, A. Ormeño⁴**

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CASE DESCRIPTION

A preschool male patient, 3 years and 8 months old with Frankl 2 behaviour and, suspected autism spectrum disorder (ASD) presented for dental treatment. The patient had complete primary dentition, high cariogenic risk (Ceod=2). Examination also showed bacterial plaque-induced gingivitis, early childhood caries. The patient had Poorly developed verbal language (21 words), onychophagia.

CLINICAL IMPLICATIONS

The patient attended dental evaluation for the first time with his mother at the Paediatric Dentistry clinic of the Universidad de los Andes, due to caries. Patient was unable to follow direct instructions and has language delay, so he was referred for speech therapy evaluation. She was diagnosed with ASD and unspecified communication disorder. Referral to a neurologist was made to conclude a definitive diagnosis. He adapted to dental consultation with modelling technique, audio-visual distraction and tell-show-do. The patient was very cooperative preventive treatment, but not in rehabilitation treatment where protective stabilization by the mother was necessary. In the last session, the patient showed improvement in behaviour with speech therapy and exercises.

CONCLUSIONS

It is of utmost importance for the dentist to be able to detect red flags in paediatric patients who require early referral for diagnosis and treatment. This can be key for the correct adaptation to the dental environment, and for the adequate development of the patient. The joint work with the field of speech therapy allowed an early referral of the patient who did not have any diagnosis or therapy.

00100057

Teledentistry in a patient with autism spectrum disorder: A Case report

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CASE DESCRIPTION

Male patient 8 years, low cooperation ability, autism spectrum disorder, mixed dentition, generalized gingivitis, in caries activity. High cariogenic risk, bad habits of digital suction and interposition of objects. Treatment based on extensive restorations and extractions under general anaesthesia due to lack of cooperation.

CLINICAL IMPLICATIONS

As the study was conducted during COVID-19 pandemic, and due to the impossibility of carrying conventional treatment and the urgency of the resolution, it was decided to treat the patient under general anaesthesia. In this context various restorations, extractions and sealants were performed. This required approval by the paediatrician and the patient was requested to fast for 8 hours before the procedure.

After the procedure, the patient was cited for control by teledentistry. This was an excellent option as it facilitated treatment monitoring during the pandemic. Additionally, the desensitization technique was used remotely, familiarizing the patient with dental attention, and making him feel comfortable with the procedures. When he came for follow-up, we could appreciate an improvement in his level of cooperation, which facilitated examination and dental prophylaxis.

Autism spectrum disorder is characterized by qualitative alterations in reciprocal social interaction and derangements in verbal and non-verbal communication. The causes of this disorder are not yet fully understood. Studies indicate that the prevalence in Chile has increased from 0,01% to 1.96% during the last 15 years.

CONCLUSIONS

Teledentistry is an excellent tool during pandemic times to desensitize a patient who was treated under general anaesthesia because of his lack of cooperation, as is the case with patients suffering from autism spectrum disorder. This will contribute to promote the integral development and the quality of life of individuals affected by autism spectrum disorder, also benefiting the families throughout the life course.

00100058**Behaviour guidance in a patient with autism spectrum disorder after general anaesthesia:
About a case****V. Jadue, A. Ormeño, F. Abarca, R. Cabezas, T. Droppelman***Facultad De Odontología, Universidad De Los Andes, Santiago, Chile***CASE DESCRIPTION**

Male patient 10 years, uncooperative. Autism spectrum disorder. Language disturbance, permanent dentition, high cariogenic risk. Multiple extensive caries lesions and deep grooves. Treatment under general anaesthesia based on extractions and sealants due to impossibility of conventional treatment.

CLINICAL IMPLICATIONS

The lack of cooperation of some patients with Autism Spectrum Disorder due to alterations in communication and behaviour, make conventional dental procedures a challenge. Sometimes there is not much time to adapt the patient due to the urgency of the treatment. In order to solve this problem, several techniques have emerged to achieve treatment, such as general anaesthesia and nitrous oxide, and other more conservative techniques, like protective stabilization and animal-assisted therapy. In this case, the mentioned techniques were tried without success, so the patient was treated under general anaesthesia. After the procedure he was summoned for follow-up, observing a good recovery, satisfaction in both mother and child and a better behaviour in the patient. He came with a different attitude and the behaviour guidance improved significantly. There are studies that show a better behaviour guidance of the patient after treatment under general anaesthesia, as it was in this case.

CONCLUSIONS

The care of patients with autism spectrum disorder is a challenge for the dentist. In some cases, it is better to treat them under general anaesthesia to improve the behaviour for future conventional treatments. It is necessary to know and use all the options of conventional techniques for adaptation in these patients, from telling-showing-doing, animal-assisted therapy to treatment under general anaesthesia, in order to improve the quality of life of the child and his or her family environment.

00100059

Patient reported measures for special care dental treatment under general anaesthetic: A pilot

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AIM(S)

Background: Patient reported outcomes measures (PROMs) and experience measures (PREMs) are surveys to assess the local quality of services. Patient centred care is something we aspire to, and General Anaesthetic (GA) is low volume, high-cost intervention sometimes required to provide dental care to the special care population that requires justification. Here is presented the experience of developing this via PROMs and PREMs in a tertiary referral centre. This study aimed to demonstrate the iterative process of PROMs and PREMs development.

METHODS

PROMs and PREMs surveys were developed with a patient experience team, incorporating recommend questions from national commissioning guides and elsewhere also incorporating Likert scales (1-5). The survey sample was a whole population of all patients seen for GA within the Special Care Dentistry department, distributed before and after GA to assess change.

RESULTS

In the initial pilot questionnaires returned (n=29) and matched pairs identified (n=7). The biggest changes were reduction in pain (28%) and reduction in daily problems with mouth (18%). The lowest ranking item was "Did you receive help in how you should now look after your teeth?" (mean=4.42). Some questions were inconsistently answered and were confusing to carers

and patients. In the second-round key high value questions were identified and simplified, with direct input from a special care focus group. Forms were also modified to allow remote data collection to increase engagement.

CONCLUSIONS

Special Care Dental GAs are highly valued by patients, reduce their pain and increase oral function. Patients would value more prevention. PROMs and PREMs are useful feedback tools, but must be aligned with local context and the needs of services and patients.

00100060

Digital registration of oral health in rare disorders

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AIM(S)

To develop digital registration forms for clinical use and research in rare disorders.

METHODS

Major tasks for the TAKO-centre, a national resource centre in Oslo, Norway, are to systematically collect data and disseminate knowledge about oral health in rare congenital diseases. Therefore, the centre has developed digital registrations forms based on Norwegian versions of the Mun-H-center's questionnaire and observation chart. The digital forms are designed to be used in an outpatient clinic as well as research projects. The forms can be used in patients from 5 years of age. The patients or their caregivers fill out a digital questionnaire about oral related aspects. Oral findings are registered in a clinical assessment form. The Nordic Orofacial Test- Screening (NOT-S) for evaluation of orofacial functions is integrated in the charts. The estimated time for filling out each of the registrations is 15-20 minutes. The results are presented in a compiled report. An oral health indicator summarizing key findings of oral manifestations, oral health risk factors, oral hygiene and orofacial functions is displayed in the report. Issues that need further attention are highlighted by colour coding and placed on top.

The digital registrations forms have been used for investigation of oral health in adults with Bardet-Biedl syndrome (BBS). The condition is characterized by retinal dystrophy, obesity, abdominal and genitourinary anomalies. Twenty-eight adults, 19-69 years of age (mean 37,5), participate in a current study. Tentative results of the first thirteen registrations are given.

RESULTS

Oral hygiene issues with plaque and gingivitis, reduced jaw mobility, narrow palate and dental crowding has been found in two thirds of the adults with BBS. Swallowing large bites without chewing, snoring and open lip position were equally frequent findings.

CONCLUSIONS

The digital forms seem to be useful for registration of oral health characteristics in rare disorders.

00100061

Long-term follow-up of the development of dentition and orofacial functions in children with Beckwith-Wiedemann syndrome

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AIM(S)

Beckwith-Wiedemann syndrome (BWS) is a rare paediatric overgrowth syndrome with distinct genetic and clinical features. Clinical findings are variable and include characteristic facial appearance, macroglossia, hemihypertrophy, anterior abdominal wall defects and gigantism. Macroglossia is present in most of the cases. The problems caused by the enlarged tongue comprise difficulties with feeding, distorted speech and increased drooling. The position of the teeth and lower jaw are often altered. Respiratory difficulties may occur due to tongue obstruction. The presence of hemi-hypertrophy can lead to asymmetric overgrowth of the head and face. Tongue reduction surgery is a treatment option. Based on systematically collected data, the development of the dentition and orofacial functions of 8 patients with BWS from childhood to adolescence is described.

METHODS

A Norwegian model for standardized long-term follow-up of the development of dentition, facial growth and orofacial functions was outlined by the TAKO-centre and the National Craniofacial Team in order to validate the quality of care of children and adolescents with Beckwith-Wiedemann syndrome (BWS). Examinations by a specialist in orthodontics, paediatric dentist, speech and language pathologist, otolaryngologist surgeon and plastic surgeon are performed at key ages in order to identify treatment needs and to provide coordinated care. This protocol includes follow-up of persons with BWS both with and without tongue reduction surgery.

RESULTS

All individuals in this study had a macroglossia and in two of them a tongue reduction was performed. A common finding was anterior open bite in the primary dentition. In the transition from mixed to permanent dentition a reduction of the anterior open bite was registered with dento-alveolar compensation. Orofacial functions such as speech, chewing and swallowing also improved from childhood to adolescence in most individuals.

CONCLUSIONS

This study may provide useful information for clinical guidelines and improve multi-professional evidence-based practice for Beckwith-Wiedemann syndrome.

00100062

Intended behaviour of General Dentists towards patients with disabilities in Primary Health Care services in Oman

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AIM(S)

To evaluate the intended behaviour of General Dentists in Primary Health Care in Oman toward patients with disabilities. The secondary objective was to identify the gap in the local service.

METHODS

A cross-sectional survey using the International Association of Disability and Oral Health tool for measuring attitudes and intended behaviours. A Questionnaire sent to General Dentists working in Primary Health Care Service centres in Oman had three parts: demography, personal experience, and a clinical scenario. A Delphi process was used for the second part of the study.

RESULTS

There was a statistically significant relationship between experienced dentists and higher subjective pressure to treat ($P= 0.047$), positive belief ($P= 0.005$), motivation to comply ($P= 0.043$), and perceived behavioural control over the decision to treat ($P= 0.0001$). Dentists treating people with disabilities and those who said it is not difficult for them to make this decision had perceived behavioural control over the decision to treat ($P= 0.010, 0.008$). The Delphi process included three rounds. Half of the participants agreed that teledentistry is important for an initial assessment; 50% agreed that the main challenges in dental service accessibility are refusal to treat disabled patients because of their health problems, lack of national legislation, and

lack of confidence to treat. Furthermore, 77.70% agreed that there is a lack of knowledge among dentists. The majority agreed there is a lack of special facilities in dental clinics to provide dental care services including sedation.

CONCLUSIONS

The experienced dentists are more likely to treat disabled patients than those who are not experienced. The experienced dentists have higher positive beliefs, higher motivation to comply, and perceived behavioural control over the decision to treat disabled patients. Undergraduate education did not have an impact on treating disabled patients. There is a gap in Primary Dental Services in Oman to treat people with disabilities.

00100063

A case of Schizophrenia patient with selective mutism who received dental treatment by behaviour change

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CASE DESCRIPTION

Selective mutism is a disorder classified as an anxiety disorder in which the patient is unable to speak despite intact verbal ability. It is a rare disorder with a prevalence of 0.03-1%. The disorder is poorly recognized in the field of dentistry, and reports concerning its management are few. A schizophrenic patient with selective mutism was referred to our hospital due to difficulty in dental treatment and was treated by behaviour change in cooperation with the psychiatric department. An outline of the treatment is presented.

CLINICAL IMPLICATIONS

Selective mutism is an anxiety disorder. This is a condition that self-reinforces by increasing anxiety / fear and avoiding speech, and it is important to understand this condition. For this reason, the basics of patient care are that it does not put pressure on utterances and that it does not create an environment that avoids utterances too much.

CONCLUSIONS

Schizophrenia patient with selective mutism, for which dental treatment is difficult, have been able to undergo dental treatment by changing their behaviour in collaboration with psychiatry and medical care.

00100065

Considerations for invasive dental treatment in disabled patients

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CASE DESCRIPTION

Considerations for dental treatment for the disabled are discussed for each major dental procedure. The golden time for the extraction of mandibular 3rd molar is at 19 years of age; however, many disabled patients visit the dental clinic after this period. Patients with intellectual disorders or autism who express their discomfort in a different manner often have to undergo dental treatment under general anaesthesia because of their poor dental cooperation. There are additional considerations as all dental treatments must be performed under general anaesthesia once possible. Since there are patients taking antiplatelet drugs or anticoagulants, the procedure should be carried out in consideration of this.

CLINICAL IMPLICATIONS

When a caregiver recognizes patient discomfort, such as poor feeding or constantly touching the mouth with his/her hand, dental caries on the distal surface of the mandibular 2nd molar due to posterior wisdom teeth are usually present. In most cases, root canal therapy, crown restoration of the lower second molar and surgical extraction of the mandibular 3rd molar need to be performed in once. Therefore, there are additional points to think about when performing dental treatment in disabled patients. Moreover, disabled patients with various systemic diseases visit dental clinic, it is also necessary to understand the characteristics and treatment process of these patients and be able to flexibly adjust the dental treatment plan accordingly.

CONCLUSIONS

Dental treatment for the disabled should be a customized dental treatment that considers the characteristics and degree of cooperation of each disabled patient. Also, because dentists face various situations that are different from what they learn academically, not only academic knowledge but also experience is important.

00100066**Dental treatment of handicapped persons under general anaesthesia in a hospital dental department during the pandemic of COVID-19****A. Dimitriou, A. Giannopoulou, F. Zervou-Valvi, I. Fandridis***Dental Department-Dental Unit for Adults with Special Needs, "asklepieion Voula's General Hospital", Athens, Greece***AIM(S)**

The comparison of the features of handicapped patients' dental operating sessions under general anaesthesia (GA.) before and during the pandemic of COVID-19.

METHODS

Retrospective analysis of the relevant records of a two-years period before the pandemic and a two-years period during the pandemic.

RESULTS

- During 1/3/2018-29/2/2020, 315 operating sessions were performed: 137 to patients presented for the first time and 178 as a recall. In the pandemic period 1/3/2020-28/2/2022, 227 operating sessions were performed: 116 to patients presented for the first time and 111 as a recall, representing a 27.94% reduction due to COVID-19 protocols. Before the pandemic the recall group was 56.50% of the total and during the pandemic was 48.89% (decrease 7.61%).

-In the first group 888 fillings, 842 extractions and 38 endodontic treatments were carried out with an average of dental treatment needs of 2.81 fillings, 2.67 extractions and 0.12 endodontic treatments. In 44 cases no decay was detected (13.9%).

- In the second group 638 fillings, 561 extractions and 37 endodontic treatments were carried out with an average of dental treatment needs of 2.81 fillings, 2.47 extractions and 0.16 endodontic treatments. In 24 cases no decay was detected (10.57%).

CONCLUSIONS

- The serious reduction at the number of operating sessions of all specialties in the Greek Hospitals during the pandemic is due to the effort of managing the Covid cases more effectively. This reduction was also obvious in the operating sessions of our Unit.
- The decrease of the recall patients during the pandemic and the difference in number of cases without decay between the two groups treated under g.a. reflects the reduced attendance of handicapped persons with no emergency dental needs during the COVID-19 period.
- Even at this difficult period the Dental Department continued its significant social offer in the dental health of disabled adults.

00100067

A survey of Canadian Dental Hygiene programs' curricula focused on Individuals with special healthcare needs (SHCN): Findings and recommendations

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AIM(S)

The past decade has seen an increased awareness of the functional model of disability and a shift away from viewing disability in terms of the medical diagnosis. There have also been changes in North American curricula that have made the treatment of individuals with intellectual disability an essential competency for graduating Dental Hygienists. The purpose of this survey is to collect information from accredited dental hygiene programs in Canada on their programs' curricula focused on preparing students to care for individuals with special healthcare needs. More specifically, the survey will collect information from program directors about their perceptions, philosophical approach, educational methods used, and barriers experienced in this regard.

METHODS

The survey was sent out as a quality assurance exercise, to the Dental Hygiene program directors or designates from each of the 35 accredited Canadian dental hygiene programs. Participants were invited to complete an anonymous survey using a secure online platform(Qualtrics-XM, Qualtrics, Seattle WA, USA). Themes of the survey included the following: curriculum didactic and clinical training hours, philosophical approach, teaching methods, partnerships, clinic supports and strategies, barriers, and meeting new competency requirements in Special Care Dentistry (SCD). Data was analysed using

the Statistical Package for Social Sciences (SPSS ver.25, IBM Inc. Armonk NY, USA)

RESULTS

When asked to score how each model of disability best fit their program on a scale of 100 the Social Model of disability was scored the highest (71.8) followed by the Functional Model (41.7) and the Medical Model (32.8). Most of the participants reported that opportunities for students to deliver care to clients with SHCN were absent or were no longer present due to the pandemic.

CONCLUSIONS

Despite an understanding of the importance of SCD, opportunities for Canadian Dental Hygiene students to provide care for individuals with SHCN need to be improved.

00100068**Digital restorative treatment under general anaesthesia for a special needs patient with severe occlusal wear****J. Chang**

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CASE DESCRIPTION

A 22-year-old female patient visited for management of periapical abscess developed on #15. She had suffered from brain disorders and epilepsy since birth and limited oral examination was possible due to inadequate cooperation. She exhibited anterior open bite and posterior attritive defects from habitual clenching and grinding. #15 showed dens evaginatus and an extremely curved apex; its cuspal structure was worn, causing pulp exposure and infection. Comprehensive dental procedures were performed under general anaesthesia (GA). Single-visit root canal treatment was performed on #15. CAD/CAM fabricated mock-up models were created to restore the loss of tooth structure. Direct resin build-ups were performed on the mandibular premolars using clear templates created using 3D-printed models. The mandibular molars were prepared for full coverage gold crown restorations. Provisional interim restorations were fabricated by milling of CAD/CAM blocks. During the following GA session, final crowns were delivered, and occlusal balance was verified. To prevent further progression of attrition, a soft occlusal splint was fabricated for the upper dentition. The patient exhibited better chewing capabilities and her grinding was diminished after the treatment.

CLINICAL IMPLICATIONS

Within the limitations of GA procedures for special needs patients, implementation of interdisciplinary treatments is needed to minimize time and cost and to maximize the patients' benefits. CAD/CAM restorative systems can

enhance clinical efficiency by enabling chair-side fabrication of prostheses, particularly when multiple restorations are needed to rehabilitate severely worn dentition.

CONCLUSIONS

Occlusal parafunction is commonly observed in patients with intellectual and developmental disorders. Diagnosis and treatment using CAD/CAM technology can provide predictable and stable restorations and can simplify the treatment procedures for patients with generalized tooth wear defects.

00100069**Highly difficult endodontic treatments helped prevent tooth extraction for a patient with osteonecrosis risk and dental phobia: A case-report****A. Coudert, N. Decerle, N. Linas***Dental Department, University Clermont Auvergne Croc Upr, Dental Faculty Clermont-Ferrand, Estaing Teaching Hospital, Clermont-Ferrand, France***CASE DESCRIPTION**

A 77-year-old woman with rheumatoid arthritis treated with injections of methotrexate until 2019, with cardiac pathologies treated with anticoagulant and anti-hypertensive treatments, with osteoporosis treated with biannual bisphosphonates injections for 5 years and presenting phobia disorders linked to dental care consulted the dental department for acute apical abscesses on the left central and lateral mandibular incisors. The coronal destruction of the lateral incisor could be restored using direct composite restoration, but the central incisor was fractured, and dental margins were subgingival. However, due to the osteonecrosis risk linked to bisphosphonate treatment, it was decided to perform endodontic treatments on both incisors to maintain the two teeth in the arch. Both endodontic treatments were categorized as highly difficult using the case difficulty assessment form of the American Association of Endodontists because canals paths were not visible. Both treatments were planned under local anaesthesia, using cognitive behavioural techniques. Different sessions were scheduled, as the patient was easily tired. Endodontic treatments were performed according to the endodontic academic standards using microscope and specific endodontic instruments. Post-operative radiographs showed proper quality treatments. For the central incisor whose margins were subgingival, a direct restoration was realized and one prosthetic tooth was added to the pre-existing removable prosthesis using overdenture technique in another appointment. The one-month follow-up showed uncertain outcome for both endodontic treatments, with no symptom but persisting periapical radiolucency.

CLINICAL IMPLICATIONS

In special need patients, treatment plans are often more complex due to behavioural and/or medical issues leading to the need to emphasize treatment quality. Resorting to specialized department, such as endodontic consultations, while using facilitator procedures, such as cognitive behavioural techniques, allows optimizing the treatment plan.

CONCLUSIONS

Performing highly difficult endodontic treatments simultaneously with a facilitator procedure helped preventing tooth extraction in a patient with osteonecrosis risk and dental phobia.

00100070**Bradykinin-mediated angioedema: A case report****M. Bedez, C. Olejnik, D. Launay***Université De Lille, Lille, France***CASE DESCRIPTION**

A deficiency in C1-esterase inhibitor (C1-INH) from genetic (hereditary angioedema with C1-INH deficiency or C1-INH-HAE) is an inherited autosomal dominant disorder, affecting 5000 patients in Europe. C1-INH-HAE type I results from low levels of C1-INH. It's responsible of bradykinin-mediated angioedema (Bk-AE), due to higher production and/or reduced degradation of bradykinin. They are often debilitating and possibly life-threatening. The risk of attack makes the delivery of oral health difficult, as it needs a very good knowledge of the disease to minimize patient risk. A 45-year-old woman, diagnosed with C1-INH-HAE type I was referred to us for dental treatment. She was treated with lanadelumab and had available icatibant for acute attack. The disease was of moderate severity, her episodes were mostly abdominal pain, even though she had a facial episode (minimal severity) in 2020. Clinical examination showed four tooth cavities (all vital) and gingivitis (tartar presence). We planned a short-term prophylaxis (intravenous plasma derived C1-INH, 2000 U) for a one-time dental procedure.

CLINICAL IMPLICATIONS

The patient received plasma derived C1-INH two hours before the dental procedure. We started with a tranexamic acid mouthwash, and then proceeded to the scaling and four dental restorations with rubber dam. No local anaesthesia was needed, but articaine without vasoconstrictor was available. At all times, the patient had icatibant with her. She was checked for oedema before, during and after the procedure. The patient did not feel any prodrome. She agreed to a phone post-operative check 3-days after the procedure. The patient did not drive home alone, and the medical team was available afterwards. The phone check-up confirmed there was no swelling after the procedure.

CONCLUSIONS

Short-term prophylaxis, precautionary measures, availability of treatment for acute attack, and good communication before, during and after the dental procedure allowed us to minimize the life-threatening risks of bradykinin-mediated angio-oedema.

00100071

Oral sensory hypersensitivity, food selectivity and oral health in patients with autism spectrum disorder

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AIM(S)

This study was designed to evaluate the correlation between oral sensory hypersensitivity, food selectivity, oral functions, and cooperation in a dental setting, in patients with autism spectrum disorder (ASD). The aim of the study is to establish correlation between sensory hypersensitivity, food selectivity, oral health, and lack of collaboration in dental office in ASD patients.

METHODS

Through a collaboration between a Special Care Dentistry Department and a Specialized Autism Care Department, 32 patients with ASD (25 males and 7 females) have been compared with a control group (CG) of 32 healthy patients, both aged 4-10 years. Data collection (April-September 2021) was based on a sensory profile survey, a feeding habits survey and a dental and home oral health survey; followed by a first dental check-up by the dentist.

RESULTS

Level of cooperation in 25 patients with ASD (78%) was very low, 10 patients (31%) didn't even enter the dental setting; furthermore, they all had oral sensory hypersensitivity and high food selectivity. All CG patients were cooperative during the dental check-up, and they didn't have food selectivity. Home oral health care was performed twice a day in 26 patients (80%) of CG, but only in 5 (16%) ASD patients. Food selectivity was present in 28 (87%) ASD

patients and in 3 (9%) CG patients. Myofunctional oral disorders were present in 27 (84%) ASD patients and in 7 (21%) CG patients. Significant differences were observed between the two groups ($p < 0.05$).

CONCLUSIONS

Patients with ASD present high food selectivity and sensory hypersensitivity. ASD is involved in dental, oral and muscle function disorders. Early diagnosis and preventive approach are the way to stimulate a healthy oral development. Clinicians must create a workflow, to obtain patient's collaboration with desensitizer pre-operative approaches and interdisciplinary cooperation. The first step to good dental care is to obtain good collaboration during home oral hygiene.

00100074**External root resorption in patients with systemic sclerosis complex: A cross sectional study****D. Cavagnetto¹, R. Rozza², S. Buttiglieri³, F. Assandri⁴**

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AIM(S)

Patients with systemic sclerosis complex (SSC) present typical systemic and oral symptoms. Oral symptoms include skin and oral mucosa atrophy, microstomia, and periodontal ligament space widening. External root resorption (ERR) is emerging as another distinctive tract. The aim of this study is to describe the incidence of this pathological sign in a convenience sample obtained from a specialized dental care facility and to describe possible treatment options.

METHODS

Panoramic radiographs of patients with SSC who were treated at the "G.Vogel" Clinic (Milan, Italy) from January 2012 to December 2021 were assessed. Involved teeth, performed treatments, and follow up were evaluated.

RESULTS

Fourteen out of 26 patients with SSC presented ERR (with a mean of 3,86 teeth involved). Tooth position and ERR location influenced the treatment that was given and the long term prognosis of the tooth. Most teeth that were treated were incisors, cuspids and bicuspid of patient with moderate microstomia and cervical ERR. Sixteen teeth were extracted, 38 were filled with composite with or without root canal treatment (13 and 25 respectively). In 18 patients

an apically repositioned flap was required to perform the restoration. Four teeth were later extracted due to secondary cavities mainly because of an increased impairment in oral hygiene due to reduced mobility of the hands and of the worsening of the microstomia.

In case of ERR that were difficult to reach some relief was obtained by applying a self-etching bonding. Twelve out of 20 extracted teeth were replaced with dental implants.

CONCLUSIONS

Dentists delivering special care treatments must know that ERR may be sign of SSC. They must look for them at each visit because an early diagnosis may avoid invasive treatments such as root canal treatment or exodontia.

00100075**Quantitative analysis of the cleaning effect of the number of oral hygiene management instructions given to facility staff in special nursing homes for the elderly****A. Shindo, M. Kusano, M. Okazawa, T. Ooka***Division of Feeding and Swallowing Rehabilitation Department of Restorative and Biomaterials Sciences Meikai University School of Dentistry, Keyakidai Sakado, Japan***AIM(S)**

In this study was conducted with the aim to quantitatively clarifying changes in the oral environment of residents when oral hygiene management guidance was given to facility staff of special elderly nursing homes.

METHODS

The subjects resided in a special nursing home for the elderly without dental intervention with research consent, and those who could gargle were divided into two groups according to the living floor. There were 20 women and 3 men on the 1st floor, and 20 women and 7 men on the 2nd floor.

In this study, monthly oral hygiene management guidance intervention and weekly oral hygiene management guidance intervention were given to facility staff for 6 weeks. After a 3-week washout period, the monthly group and the weekly group were exchanged, and oral hygiene management guidance was also given for 6 weeks. For the measurement, the total score of "Ammonia" of saliva multi-test (multi-item short-time saliva test system, hereinafter SMT) and oral hygiene evaluation tool (hereinafter, OHAT) was used. The results before and after the intervention were evaluated using the Wilcoxon signed rank test. This study was approved by the Meikai University Ethics Committee. (Approval number A2025)

RESULTS

SMT results show significant improvements in weekly groups on both the 1st and 2nd floors. ($P < 0.05$) From the results of OHAT, significant improvement was seen on both the 1st and 2nd floors in the latter half. ($P < 0.05$). No improvement was seen for other categories.

CONCLUSIONS

We speculate that the weekly oral hygiene management guidance would raise awareness of oral hygiene management throughout the facility and improve the degree of oral hygiene cleaning.

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00100076

Early counselling to improve oral health behaviour in major congenital heart disease – results from a randomized controlled trial

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AIM(S)

To assess early repeat counselling for oral health behaviour in a randomized controlled trial.

METHODS

All children born in Finland between 1.4.2017 and 31.3.2020 with; a) congenital heart defect (CHD) at risk for endocarditis or, b) any CHD with surgical repair and a chromosomal syndrome, were offered to participate (NCT03329170). 70 children randomized 1:1 to CHD intervention and CHD control, and a parallel group of 89 healthy children were included. In the final analysis 25 CHD intervention, 27 CHD control and 50 healthy children were included. Counselling with motivational interviewing was provided to intervention group at baseline, 6, 12, and 18 months of age. Oral health behaviour was evaluated in three domains (toothbrushing, sugar intake, and dental care contact) at 24 months, and among CHD intervention also at 12 and 18 months.

RESULTS

At 24 months, teeth brushing was performed twice a day in 19/25 (76%) CHD intervention, 12/27(44%) CHD control ($p=0.026$, intervention vs control), and in 37 /50 (74%) healthy ($p=0.014$, CHD control vs healthy) children.

Similarly, fluoride toothpaste was used twice a day in 19 /25(76%) CHD intervention, 9/27(33%) CHD control ($p=0.003$, intervention vs control), and in 28/50 (56%) healthy ($p=0.093$, CHD controls vs healthy) children. Electric toothbrush was used in 12/25 (48%) CHD intervention, 5/27(19%) CHD control ($p=0.038$, intervention vs control), and in 7/50 (14%) healthy ($p=0.744$, CHD control vs healthy) children. Among CHD intervention, there was a gradual improvement in toothbrushing, fluoride toothpaste and electric toothbrush use between 12 months and 24 months. Sugar drink intake was more common in CHD control vs healthy children ($p=0.029$), but similar to CHD intervention children. There were no statistical group differences in dental care contact domain.

CONCLUSIONS

CHD children are at risk for poor oral health behaviour. Toothbrushing habits can be improved in CHD children with early repeat counselling.

00100077

Electronic dental record keeping in the Special Care Dentistry Department at the Royal National ENT & Eastman Dental Hospital: A quality improvement project

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AIM(S)

This study aimed to 1. ensure that record keeping by clinicians within Special Care Dentistry (SCD) Department is meeting standards set by local and national guidance; 2. To explore clinician's views and educational needs in relation to Electronic Health Records (EHR).

METHODS

This was a retrospective audit that assessed EHR of patients seen by the SCD team between June and August 2021. EHR were selected conveniently and focused on consultations only, excluding treatment visits. Items assessed were classified as essential, relevant to SCD and aspirational in accordance with national guidance. Standards were set as 100% for essential, 80% for relevant to SCD and 50% for aspirational items. A basic descriptive statistical data analysis was carried out using STATA/ES 15.1 software. Detailed individualised feedback was then sent to each participating clinician (n=8). Team members were asked to complete an anonymised questionnaire that focused on their views and educational needs regarding record keeping.

RESULTS

A total of 107 EHR were included. Overall, documentation of essential items ranged from 52% to 100%. Patient's information, medical history and presenting complaint were present in 100% of the records. A high proportion

of EHR included extra-oral examination (93%) and soft tissue assessment (92%). Regarding items relevant to SCD, results showed that these ranged from 85% to 90%. For aspirational items, findings highlighted that these were documented in most records, with results ranging from 69% to 76%. All clinicians found individualised feedback clear and reported using templates for EHR documentation regularly. However, not all valued future IT training.

CONCLUSION

This project revealed a high compliance with national standards. Nonetheless, not all essential items reviewed achieved a 100%. Personalised feedback was found to be useful in supporting clinicians' own development. However, this project also highlighted that not all members perceived a benefit from further IT training on EHR.

00100078

Implications of a spinal cord injury on oral health - a scoping review

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AIM(S)

Oral health is an important part of general health and oral healthcare is essential. Dental professionals are responsible for ensuring that the oral health challenges for people with spinal cord injury (SCI) are overcome. This is bound by the UK 'Equality Act 2010'. There is a very little research on oral health and SCI. This scoping review aims to identify what is known about the oral health implications for adults with a Spinal Cord Injury (SCI) and identify research gaps.

METHODS

This scoping review was guided by the six-stage framework proposed by Levac and colleagues. Electronic databases, grey literature and organisational websites were searched from (time span). A thematic synthesis of the data was undertaken. Stakeholders were engaged to support interpretation of findings and development of recommendations.

RESULTS

Overall, 22 studies were included, published from 1993-2021. Studies originated from eight countries (with half from the USA), the majority were cohort studies (n=17) with no randomised controlled trials. Studies covered three key themes: oral health status, oral health behaviour and access to oral healthcare for patients with a SCI. In terms of oral health status, a higher proportion of untreated dental caries was reported in the SCI population compared with a control group. For oral health behaviours, studies found few people with SCI

have been shown effective toothbrushing. Finally, access was limited by both physical barriers and dentist's hesitancy to provide care for patients with a SCI.

CONCLUSIONS

Oral health status, oral health behaviours and access to oral healthcare were found to be the key implications for patients with SCI. There is a lack of high-quality evidence with gaps in the literature about appropriate ways to improve oral health and overcome barriers to dental access.

00100079

Association between plaque genomic DNA and periodontal disease in down's syndrome - Analysis by shotgun metagenome

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AIM(S)

The main bacteria constituting plaque in the periodontal pocket are being analysed, but little has been analysed for bacteria, viruses, and fungi that are difficult to analyse. Therefore, the purpose of this research is to investigate the relationship between bacteria, viruses, and fungi to periodontal disease, which has been difficult to analyse until now, using next-generation sequencers.

METHODS

The C group is aimed at 5 persons as healthy subjects receiving maintenance, periodontal disease patients in group P, and Down syndrome patients in DS group. OHI, gingival index (GI), pocket depth (PD), bleeding on probing (BOP), and attachment loss (AL) are measured as evaluation of oral hygiene and periodontal disease in the whole jaw. Samples of next-generation sequencer (NGS) analysis are taken from the deepest periodontal pockets.

In the analysis, after the shotgun library is produced from metagenome DNA, the sequence data is acquired using the illumina sequencer installed in the Okayama University biobank. Shotgun metagenome analysis is performed by mapping the acquired lead to a database sequence. A part of the sample is used for meta 16S analysis.

RESULTS

As a whole tendency, clostridiales eyes, Fusobacteriales eyes, Bacteroidales eyes, Actinomycetales eyes were classified at the level of the eye, and existed at a relatively high rate in plaque. Actinomycetales was present in the prophylactic dental patient at a comparatively high rate. Clostridiales and Bacteroidales eyes were very similar in their relative presence in each plaque. Campylobacterales was not large in plaque at most 6.1%, but it existed at a relatively high rate in Down syndrome patients.

CONCLUSIONS

By this study, the composition of the microflora was able to be examined more efficiently than the 16S rRNA analysis in the NGS analysis.

00100080

Survival of dental restorations performed under general anaesthesia in special needs patients. Report from 17-years experience

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AIM(S)

Assess survival of dental restorations (DR) performed under general anaesthesia (GA) in a cohort of special needs patients (SNP) over a 17-year period.

METHODS

Uncooperative SNP requiring dental treatments under multiple GA in our institution were selected. Data regarding dental treatments performed in these patients from 2002 to 2019 were retrieved from hospital records. Presence and clinical functionality of DR were assessed in subsequent follow-up visits or dental treatment under GA during a 17-years timespan. DR were considered successful since they incurred in an event (replacement, tooth loss, endodontic treatment). Results are expressed as median and interquartile range (IQR) for continuous variables and number and percentage for categorical ones. A Kaplan Meier estimator was employed to estimate the median survival time (MST) of DR and its 95% confidence interval (CI). Variability between patients was assessed with a random effect model.

RESULTS

Seventy-seven SNP underwent dental treatments during 2019, 18 patients were excluded since only one procedure under GA was performed. Final analysis included data from 59 patients (109 multiple interventions under GA). Dental treatments performed included: 307 dental restorations, 218 tooth extractions, 109 scaling/root planing procedures. Survival of 232 dental

restorations was assessed. MST was 9 years (CI 8-10years) The most relevant steps in survival analysis were seen after 2 and 11 years from the last procedure. No considerable variability was observed in our population.

CONCLUSIONS

MST of dental restorations performed under GA our cohort resemble previous findings regarding routine conservative treatment in the general population. Lack of variability in our analysis suggest that ST seems not influenced by individual characteristics of patients. Despite the limited time (generally 120 minutes) our findings support tooth restoration as a reliable treatment modality in SNP treated under GA.

00100081**Management of patients at risk of adrenal crisis in the dental setting: A review of current practice in UK dental teaching hospital****A.G. Gaw¹, C. Wemyss², A. Bell³, C.A. Goodall⁴**¹*Dct 2, Public Dental Service, Forth Valley, United Kingdom*²*Specialty Registrar in Oral Surgery, Glasgow Dental Hospital and School, Glasgow, United Kingdom*³*Professor of Oral Surgery and Dental Education, Honorary Consultant in Oral Surgery, Head of Dental School, School of Medicine Dentistry and Nursing, College of MvIs, University of Glasgow, Glasgow United Kingdom*⁴*Senior Clinical Lecturer and Honorary Consultant in Oral Surgery, School of Medicine Dentistry and Nursing, College of MvIs, University of Glasgow, Glasgow, United Kingdom***AIM(S)**

Patients with impaired corticosteroid response due to Addison's or systemic glucocorticoid use are at risk of adrenal crisis when undergoing dental treatment. There is a lack of conclusive evidence to support dental teams in identifying patients at risk and their management to prevent an adrenal crisis. The aim of this study is to review the current practice in UK Dental Teaching Hospitals regarding the management of patients at risk of adrenal crisis in the dental setting.

METHODS

An electronic survey focused on patients who may be at risk of adrenal crisis due to systemic glucocorticoid therapy was sent to all 18 UK Dental Teaching Hospitals. Information on the use of a policy or guidance was requested. Responses were evaluated for clinical decision making, patient risk assessment, and steroid cover dosing regimens. This study is a service evaluation therefore ethical approval was not required.

RESULTS

A 78% response rate was achieved. Only 29% of institutions had a written policy or guidance document. Variation exists in the threshold of steroid dose and duration of treatment in identifying patients at risk of adrenal suppression. Furthermore, the dose regime for steroid cover varied.

CONCLUSIONS

Further evidence on the management of patients at risk of adrenal crisis is required to inform national guidance and reduce variation in patient management.

00100082

Challenges in providing special care dentistry during COVID-19 pandemic: A survey of public dental care services in Italy

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AIM(S)

To assess COVID-19 pandemic impact over public health services involved in special care dentistry (SCD).

METHODS

Customized questionnaire was sent to 45 public health care services involved in SCD. Healthcare personnel on duty, safety of healthcare service facilities, time of suspension of routine dental practice, reduction of routine dental procedures in special needs patients (SNP), kind of SNP mostly penalized during different periods of time in the COVID-19 pandemic: precovid period (T0), lockdown (phase1) and post pandemic reopening (phase2) were analysed. Statistical analysis of answers retrieved was made to compare T0-phase1-phase2. Linear regression model for longitudinal data was employed generalized least squares (GLS), regarding closed yes/no questions a McNemar test for paired proportions was employed($p < 0.05$).

RESULTS

Twenty-one questionnaires were returned. A significant decrease of median number of healthcare staff during phase1 was observed. Prevalence of covid-19 infection among healthcare personnel was not significantly different

between phase1 vs 2. Medical surveillance of healthcare personnel during phase1 was significantly lower than after phase2. Dental procedures were significantly lower between T0 and phase1 (85% reduction). And between T0 and phase2 as well (40% reduction). SNP with lack of cooperation and/or living in residential care homes were the most disadvantaged in relation to access to dental care during both phases.

CONCLUSIONS

Our data reveal that reduction of dental procedures, healthcare professionals and days of suspension of clinical activity were still considerable also in phase2 with respect to precovid period and in some cases not significantly different from phase1.

00100083**Experiences of staff from residential facilities for persons with intellectual disabilities regarding the cooperation with dentists****F. Beuthel, P. Schmidt, A.G. Schulte***Department for Special Care Dentistry, Witten/herdecke University, Witten, Germany***AIM(S)**

In daily clinical practice a deficit in dental care of persons with intellectual disability (PWID) can often be observed. An important aspect in this context is the cooperation between dentists and German residential facilities. The aim of this study is to identify barriers to dental care for PWID from the perspective of the care personnel working in residential facilities.

METHODS

An online survey was conducted between June 2021 and March 2022. It was aimed at caring or nursing staff of residential facilities for PWID. The link to the questionnaire containing 75 questions and to be completed anonymously was scattered on websites of professional associations, in relevant groups of social networks and through institutional administrators of various facilities. This procedure is classified as snowball-technique. A positive vote of the ethics committee of Witten/Herdecke University was obtained (S-123/2021).

RESULTS

In total, 645 persons could be reached, whereof 314 (48.7%) completed the questionnaire totally. A cooperation between the facility and at least one dentist was reported by 172 (54.8%) of the participants. Of these, 140 persons (81.4%) stated that they were satisfied with this cooperation. According to 195 participants (62.1%) it is difficult to find a dentist having experience in treating PWID. 93 carers (29.6%) reported to have experienced that a dentist refused

the treatment of a resident because of the disability. On the other hand, 80 participants (25.5%) stated that their institution does not have internal guidelines for the number of the residents' dental check-ups per year.

CONCLUSIONS

The results show that the cooperation between dentists and residential facilities needs to be improved. A major obstacle consists in finding a dentist who is willing to treat PWID. In addition, many residential facilities must be encouraged to revise their guidelines regarding the dental care for their residents.

00100084**The importance of maintaining patient-led sustainable daily oral health in patients with multiple dental caries under xerostomia due to Sjogren syndrome****D.G. Seo, J.S. Ahn***Seoul National University, Seoul, Republic of Korea***CASE DESCRIPTION**

Patients with Sjogren's syndrome are more likely to develop caries because their salivation is low.

A forty-seven-years-old female was a patient with Sjogren's syndrome, who was treated with composite reins for previous multiple caries due to xerostomia. Topical fluoride was applied every six months after treatment three years ago, but several secondary caries and marginal discolouration occurred.

We analysed the causes over the past period at the same time as determining composite resin retreatment according to patient's chief complaint about non-aesthetic tooth colour. In the meantime, the patient has not improved her tooth brushing habit, and fluoride application in the clinic performed every 6 months was only an instantaneous one-point approach, so it was not possible to expect a valid effect.

To solve this problem, we focused on creating a sustainable healthy oral environment in the daily patient's life. After repairing composite resin, intensive tooth brushing education, motivation, and feedback were repeatedly retrained for three months. The patient chewed vegetables more often than other foods for a healthy and good moisture environment.

Through these treatments and education to maintain a sustainable oral environment daily, the patient has increased her satisfaction for two years until now and are showing good conditions for composite resin restorations.

CLINICAL IMPLICATIONS

It is most important for the patient to maintain a daily sustainable healthy oral condition in order to preserve good condition for teeth and restorations in a xerostomia patient.

CONCLUSIONS

In the case of a xerostomia patient, it was important not only to treat dental caries, but also to provide proper brushing education, continuous implementation of the patients themselves, and to supply moisture through chewing vegetables.

00100085**Outline of an oral care program for children and youth with neuropsychiatric disabilities****P. Dornérus, M. Hall***Mun-H-Center Folk tandvården Västra Götaland, Gothenburg, Sweden***AIM(S)**

The dental team at Mun-H-Center (a national orofacial resource centre for rare diseases and a specialist dental clinic) have, over many years accumulated knowledge and experience with clinical care of patients with neuropsychiatric disabilities (NPD). Most children and youth with NPD need extended preventative dental care. Hypersensitivity to touch, smell, taste, sight and hearing, as well as cognitive difficulties, affect a patient's ability to handle oral care at home and to cooperate during appointments at the dental clinic. Children and youth with NPD need to interact with experienced dental care professionals, who have specialized knowledge of patients with special needs. It is important to establish safe, comfortable, and dependable routines early on, so that an excellent level of oral care can be maintained. This project aims, in addition to accumulating clinical experience, to compile a comprehensive oral care program for the treatment of children and youth with NPD.

METHODS

Mun-H-Centre's standard template was used to configure this oral care program. Also included are suggested routines prepared by two dental nurses with many years' experience working with the orientation of patients with NPD in dental care.

RESULTS

This oral care program includes guidelines for orientation in dental care with recommendations for preparation, environmental adaptations, routines, and structures for treatment situation. Methods for acclimating patients to the

sensory experience of a dental care situation, the “Low Arousal Approach” and communication customization tools such as picture support are also included.

CONCLUSIONS

Children and youth with NPD can maintain good oral care if they are offered individually adapted interactions by dental care. The Low Arousal Approach of non-confrontation is recommended to create a pedagogical and calm environment. Relatives/assistants are important collaborators.

00100086**Assessment of stem cell response and repair using in-vitro radiation-induced salivary gland injury model****A. Upadhyay, S.D. Tran***Faculty of Dental Medicine and Oral Health Sciences, McGill University, Montreal, Canada***AIM(S)**

The American Cancer Society reported 54,010 new cancer cases in the oral cavity and pharynx in 2021. Radiotherapy for cancer inherently causes damage to healthy tissues (such as salivary glands) within the radiation zone. Damage to saliva secreting cells leads to oral dryness or xerostomia. It increases the chances of oral and systemic infections, painful swallowing, loss of taste, and malnutrition leading to considerable morbidity lasting several years. With no gold standard treatment available, stem cell therapies are being explored. The main objective is to study the radioprotective and regenerative effect of mesenchymal stem cell (MSC) secretome in in-vitro cell culture and organotypic slice culture model, and to determine its active proteins.

METHODS

Primary salivary cells are cultured after enzymatic digestion of human salivary gland biopsies. Additionally, 100–150-micron thick slices are sectioned from salivary gland samples using a vibratome. The cells and tissue slices are radiated after an appropriate culture period, followed by treatment with the MSC-derived conditioned media. DNA damage marker gammaH2AX immunofluorescence for recovery from radiation-induced damage, superoxide dismutase enzyme activity to assess the oxidative stress, and viability studies are conducted to assess the action of MSC secretome. Moreover, salivary gland-specific markers and recovery proteins are assessed through qPCR and western blots.

RESULTS

Slice cultures remained viable for over a week. 5 to 7.5Gy radiation reduced the viability of the tissues and cells to 40-60 % within 24 hours. An increase in live cell number and intensity was observed in MSC conditioned media treated slices.

CONCLUSIONS

MSC conditioned media offers a prospective treatment for radiation-induced xerostomia. Outcomes thus assessed will be used further to narrow down the active components of the MSC-derived proteins. It will ensure minimal side effects of stem cell therapeutics and accelerate its clinical translation.

00100087**Development of impression stock trays for TS21 infants from the age of 3 months until the eruption of primary teeth****M. Dehurtevent, J. Dobrenel, C. Delfosse, C. Denis, F. Chai, J. Vandomme***Université De Lille, Lille, France***AIM(S)**

The aim of this work was to develop computer-aided design computer-aided manufacturing impression trays to facilitate the impression-making methodology for TS21 infants from the age of 3 months until the eruption of primary teeth to produce myostimulation plates.

METHODS

65 archival maxillary plaster models of TS21 infants, used to manufacture myostimulation plates, were collected. Four zones of interest were measured on each model with an electronic caliper. The measurements of each zone were respectively ordered from smallest to largest to compute quartiles of the four zones. Four models, that has the measured values of four zones respectively closest to that of three computed quartiles and maximal value, were selected as the representative of four sizes of TS infants' maxilla. The impression trays were digitally modelled by computer-aided design software from the selected plaster models and then fabricated using the additive technique of stereolithography with a biocompatible and sterilisable dental resin. Their effectiveness was proven in a clinical case report by applying them to the treatment of a TS21 infants aged 3 and 9 months with parental consent.

RESULTS

Four impression trays, corresponding to four sizes of TS21 infants' maxilla, were digitally modelled and exported in .STL files, which are available for free

download via a QR code for any interested practitioner. The prefabricated impression trays have been shaped and finished using additive manufacturing and are ready-to-be used to take TS21 impressions with ease.

CONCLUSIONS

A series of four impression stock trays of different sizes for maxillary impressions was developed in this study. It is possible for any practitioner to take an accurate impression of the maxilla for the TS21 infant by the fabricating their own stock trays via free access to our .STL files.

00100088

Special needs children compliance and oral myofunctional treatment with silicone equilibrators

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AIM(S)

Oral myofunctional disorder (OMD) in deciduous or mixed dentition, are a common clinical condition in special needs children (SNC). Due to poor cooperation, in SNC is often impossible to perform x-ray, dental prints, or photos; delay the orthodontic treatment in presence of OMD, means high risk to develop a malocclusion or worse it. The aim of the present study was to evaluate the compliance offered by non cooperative SNC, using myofunctional equilibrators, compared with a control group (CG) of healthy cooperative children.

METHODS

The study comprised of 56 SNC of a public special care dentistry department, aged 5-11, presenting OMD and no collaborative to get orthodontic records, with a control group of healthy and collaborative children with OMD of private dental practice, aged 5-11, using a silicone equilibrator, for 2 hours during the day and at night. The evaluation was made 6 months after delivery.

RESULTS

In SNC 10.71 (6) non-use, 12.5 (7) 2 hours during the day and night, 12.5 (7) less than 2 hours day and night, 25% (14) only during the day, 39.29 % (22) only at night. In CG 0% non-use, 44.64% (25) 2 hours during the day and night, 19.64% (11) less than 2 hours during the day and night, 0% only during the day, 35.72% (20) only at night. Considering compliance for less than 2 hours

during the day and night and for all night, there isn't statistical difference between SNC and CG ($p < 0.05$) and the sample is representative of the population studied.

CONCLUSIONS

Despite the absence of collaboration in the dental setting, the use of myofunctional equilibrators in SNC with OMD should be proposed, to improve OMD and prevent and/or improve malocclusion. Furthermore, equilibrators can be a tool to improve collaboration in dental setting and with dental team.

00100089

Hub and spoke network in Bologna metropolitan area for medical and dental care for special needs patients - A retrospective cohort study

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AIM(S)

As per Ministerial Guidelines of the Italian Ministry of Health since 2019, special needs patients should receive adequate level of both medical and dental assistance, tailored on their necessity. Evidence suggests that health services are not always providing reasonably adjusted care for disabled people. We hereby present our consolidated experience of a hospital-territory network implemented by Disabled Advanced Medical Assistance (DAMA) Project.

METHODS

Clinical records regarding A&E accesses and scheduled therapies for special needs patients, from 2011 to 2019 were collected. Data obtained were divided

into two periods: first period (until 2014), before the DAMA network was well established and second period from the year of the complete implementation of the network (2015). The data were compared by means of descriptive quantitative analysis.

RESULTS

During the first period considered, 2553 patients have been admitted to the A&E for Dental Emergency care, while 1123 have been admitted, for the same reason, in the second period. Whereas the scheduled therapies collected have been respectively 31706 and 23285. The A&E admitting rate indicates that there has been a considerable reduction (-56,01%) of medicalization of special needs patients after the introduction of the network. In parallel, the request for scheduled therapies lowered (-26,56%) cause of the progressive enlistment of special need patients for dental screening and early treatment.

CONCLUSIONS

The DAMA project has proven to be a viable organizational structure to improve the path of cure and care of the patients with disabilities reducing preventable accesses to A&E and an optimization of the logistic effort sustained by National Health System.

00100090

Association between fissure sealing and caries experience in German Special Olympics athletes in young adulthood

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AIM(S)

In Germany, statutory health insurances have been reimbursing for the application of fissure sealants (FS) in children and adolescents since 1989. This offer is independent of whether there is a disability. The aim was to determine the association between FS and caries experience in young adult athletes participating in the Special Olympics Germany (SOG) Summer Games in 2018.

METHODS

During the SOG-Games, athletes were examined by trained dentists on a voluntary basis as part of the Special Smiles-program. By using artificial light and a dental mirror, the presence of FS on the premolars and permanent molars as well as the DMFT-index for the dentition were determined according to the WHO-recommendations. It made no difference whether the FS were complete or not. These data were analysed subsequently by using MS Excel 2016 and SPSS 26.

RESULTS

Overall, 433 SOG-Athletes between the ages of 18 and 34 years received dental examinations. Their mean age was 24.9 years ($SD \pm 4.8$) and the mean caries prevalence rate ($DMFT > 0$) was 69.2%. Out of them, 35.6% ($n=154$) had at least one FS ($SOG-A_FS > 0$). It could be seen that the mean DMFT-value of these athletes ($SOG-A_FS > 0$) was significantly lower than that of athletes

without FS (SOG-A_FS=0). The corresponding DMFT-values were: SOG-A_FS>0 - 2.38 (95%CI 1.90-2.87) and SOG-A_FS=0 - 4.96 (95%CI 4.34-5.58). In addition, the caries prevalence rate of 57.9% in the group „SOG-A_FS>0“ was significantly lower than in the group “SOG-A_FS=0”, where it was 74.6%.

CONCLUSIONS

The results of the current study are in line with results of other studies from Germany and the present study confirms the finding that fissure sealing as a tool for caries prevention can also have a long-term effect.

00100091

Perspectives of professionals and caregivers on the inclusion of children with disabilities in oral health

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AIM(S)

This study aimed to explore the perspectives of caregivers and professionals to identify the ways that children with disabilities are included in oral health.

METHODS

This was part of a larger ethnographic study. A purposive sample of ten caregivers of children with disabilities, five healthcare providers providing different medical services, and five educational professionals in Riyadh, Saudi Arabia, participated. Ten caregivers of children with disabilities participating in this research were mothers of children aged 9 to 15 years. Data collection used semi-structured in-depth interviews. Data were analysed using inductive thematic analysis.

RESULTS

Mothers as sole agents for their children's oral health lacked a supportive environment that developed their skills and knowledge about oral health and oral health care, preventing them from including their children in oral health. Inaccessible services added to the exclusion of mothers and children from

oral health. Dental professionals displayed discriminatory attitudes towards disabled children and problematised mothers. They displayed poor communication skills and lacked education and insight about disability and the skills to treat disabled children without a general anaesthetic. Educational professionals tended to discuss disabled children in terms of inability, displaying a deficit approach to impairment.

CONCLUSIONS

This evidence suggests that if mothers are excluded from oral health, this then has an impact on how they enable their children. Dental education, oral health policy, and service provision in Saudi Arabia should consider ways of reducing oral health inequalities for mothers of disabled children, who are a marginalised group, via the provision of support, education using the social model of disability to focus on societal barriers rather than conceptualising disability as an individual problem.

00100092**Strategic management of establishing a special care clinic in Egypt - Significant challenge****M.A.G.Y. Boules***Arab Academy for Science Technology & Maritime Transport (aastmt) University, Giza, Egypt***AIM(S)**

This paper aims to review the impact of special care on disability in Egypt, identify the factors that influence access to dental care, examine the political and economic barriers that hinder the provision of special care services, and how to overcome them.

METHODS

To meet persistent challenges in the dental health care system. A strategy for the entire special care dentistry office was evaluated based on a strategic planning approach that considers both Micro and Macro environmental aspects. The special care office aims to enhance the oral health service level provided to people with disabilities in Egypt.

The Blue Ocean strategy is selected as a business model instead of the Red Ocean strategy, where the competition with regular dental clinics is irrelevant. The social impact of our services comes with the same priority of making profits; thus, we integrated the "Profit with Purpose" principle into our business model.

A detailed situational analysis was established, which included external environment analysis such as Political factors, Economic factors, Social factors, Technological factors, Legal, Ecological factors (PESTEL), and Internal environment analysis—followed by assessing the business model's strengths, weaknesses, opportunities, and threats by utilizing (SWOT) strategic analysis matrix.

RESULTS

SWOT Matrix is a powerful tool for creating a strategic map that allows the organization to perform a chosen the most suitable and effective strategy and serves to define the organization's strategic opportunities. In addition, adjust the management process, ensuring the special care dentistry office's "adaptability"

CONCLUSIONS

This study highlights the major steps and challenges in opening up a successful SPECIAL CARE office in EGYPT. Thus, every SC DENTISTS should know all the important points beforehand that have to be followed strategically step by step in opening up a dental practice specializing in SCD.

00100093**Effects of a disability-simulating learning unit on ableism of final-year dental students****A.L. Hilebrecht¹, S. Steffens¹, A.J. Roesner¹, R.J. Kohal¹, K. Vach², B.C. Spies²***¹Department of Prosthetic Dentistry, Center for Dental Medicine, Medical Center-University of Freiburg, Freiburg, Germany**²Institute for Medical Biometry and Statistics, Medical Center, University of Freiburg, Freiburg, Germany***AIM(S)**

This study aimed to describe a disability-simulating learning unit (DSLNU) to raise dental students' awareness of the special needs of patients with disabilities as well as to measure the effect of the DSLNU on ableism.

METHODS

A DSLNU among final-year undergraduate dental students ($n = 33$), was developed and evaluated. The students were randomly divided into two groups (Group I, $n = 17$; Group II, $n = 16$). Group II only received conventional teaching (control group), whereas Group I was additionally exposed to the DSLNU (intervention group). In the DSLNU, typical physical restrictions and the associated difficulties in attending dental appointments were simulated with the help of simulation suits. Four different stations offered the opportunity to experience typical signs of disability in a dental context. About 2 months after the DSLNU, both groups were asked to answer the Symbolic Ableism Scale (SAS). An analysis was conducted to examine the participants' average total score and several subscores. The Mann-Whitney U Test was employed to control the differences between the study groups.

RESULTS

Overall, the students in the intervention group had a significantly ($P = 0.0012$) lower mean SAS summary score (median = 0.37) than the students in the control group (median = 0.50).

CONCLUSIONS

The DSLU is a potentially feasible and effective method for influencing students' ableism attitude.

00100094**Effectiveness of the approach appointments in obtaining the collaboration of orthodontic patients of the public service Ausl Bologna (Italy), a retrospective cohort study****A.M. Baietti¹, R.R. D'agostino², M.C. Montanari², G. Pucci², R. Grimaldi², R. Florio²**¹Oral Maxillofacial Surgery Bellaria and Maggiore Hospital Ausl Bologna, Bologna, Italy²Maggiore Hospital Ausl Bologna, Bologna, Italy**AIM(S)**

This study analyses the different management between disabled children and a group of children without diagnosed disabilities in orthodontic treatment in public orthodontic service.

METHODS

The study consisted of comparing the cooperation and timing of orthodontic treatment in 3830 paediatric patients selected by cluster randomization (40 special needs patients, 3790 patients without special needs). The inclusion criteria for both groups were to compliance with orthodontic treatment, Components of the Orthodontic treatment Need Index (IOTN 2-5), age 5-14, no previous orthodontic treatment. The data collected in medical record concern: age and gender, number of appointments to improve the collaboration. All patients were approached with the tell - show-do method (TSD) to obtain cooperation.

RESULTS

We found significant differences between two groups. Most of the patients with special needs cooperated (75%) at the third appointment, while most of the control group (80%) at the first appointment. TSD approach, with only

one additional appointment allowed the orthodontist to get cooperation from 100% of the patients. The gender of the patients is not a discriminating factor. The need for the TSD session is inversely proportional to age.

CONCLUSIONS

This study encourages orthodontists to implement the tell-show-do method (TSD) to achieve the cooperation of all children who require orthodontic treatment. In special needs patients this is extremely true to obtain adequate compliance.

00100095**An audit of urgent dental referrals received for patients being considered for cardiac surgery at Guy's and St Thomas' Hospitals, London, UK****R. Clark, S. Kaka, J. Dick***Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom***AIM(S)**

This study aimed to study the impact of a new referral pathway to;

- (a) Improve efficiency of dental care pathway for patients undergoing urgent cardiac surgery.
- (b) Reduce risk of delay to cardiac surgery due to dental needs.

METHODS

A retrospective two-cycle audit of dental referrals for patients being considered for valve surgery, or surgery involving the implantation of intravascular or intracardiac material. Email referrals to the dental team over twelve months (2020/21) were analysed using predefined criteria in cycle 1. After implementation of a new pathway, referrals were re-analysed over five months (2021) in cycle 2.

STANDARDS

- 90% of referrals in cycle 2 are via the electronic referral portal.
- 90% of referrals have information on the patient's: medical history, ability to attend dental clinic, anticoagulation status, need for antibiotic prophylaxis and ability to safely have adrenaline containing local anaesthetic.

- 100% of inpatients with planned cardiac surgery, are referred for dental assessment within 72 hours of admission.
- 100% of dental referrals are actioned within 72 working hours.

RESULTS

- 18 (82%) referrals in cycle 2 were received by the electronic referral portal.
- 20 (100%) referrals in cycle 2 contained information regarding local anaesthetic, antibiotic prophylaxis, anticoagulation status and ability to attend (3 (13% cycle 1).
- 21 (95%) referrals in cycle 2 contained medical history information (11 (48%) cycle 1).
- 11 (65%) of referrals in cycle 2 were received within 72 hours of patient admission (11 (48%) in cycle 1).
- 21 (95%) referrals in cycle 2 were reviewed by the dental team within 72 hours (27 (100%) in cycle 1).

CONCLUSIONS

Electronic referral formats increased information provided to the dental team, enabling safer, more efficient dental care pre-cardiac surgery.

RECOMMENDATIONS

- Host training with cardiac teams to ensure timely dental referrals of inpatients via the correct pathway.
- Re-audit 12 months including the standard "time between invasive dental treatment and cardiac surgery should be no less than two weeks".

00100096**Oral health and oral motor function in individuals with POLR3A-related hereditary ataxia and spastic paresis: Preliminary results of a cross-sectional study****S.A. Støvne, M. Myint, P. Åsten, H. Nordgarden***National Resource Centre for Oral Health in Rare Disorders, Lovisenberg Diaconal Hospital, Oslo, Norway***AIM(S)**

The POLR3A gene encodes for the largest subunit of the enzyme RNA polymerase III (POL III). Changes in this gene have been associated with POL III-related leukodystrophy and Wiedemann-Steiner syndrome. Abnormal tooth development is a frequent feature of these conditions. Recently, also hereditary ataxia (HA) and spastic paresis (HSP) have been associated with intronic variations in this gene. The aim of this study was to describe orofacial manifestations and oral function in adults with HA or HSP.

METHODS

Ten patients with the clinical diagnosis HA or HSP in addition to presumed disease causing intronic variants in the POLR3A gene were referred from Department of Neurology, Oslo University Hospital, Norway. Six of them accepted to participate in the study (mean age 52 years). The participants filled in a digital questionnaire about oral health related aspects. They also underwent a clinical examination, including the Nordic Orofacial Test - Screening (NOT-S), intraoral scanning, and salivary flow measurements. Panoramic radiographs and photographs were taken. Some data were obtained from local dental records. The data were analysed with regards to dental development and oral health and function.

RESULTS

The participants missed on average 5.8 teeth (1-18), third molars excluded. One participant had congenital absence of seven permanent teeth. All participants had short dental roots and four had mandibular tori. Four participants reported moderate to severe gross motor impairment. The mean NOT-S score was low (median 1, 0-3 of maximum 12).

CONCLUSIONS

The number of participants in this study is small, but we assume that the prevalence of dental anomalies, such as short dental roots and tooth agenesis, are higher in individuals with HA and HSP in addition to intronic variations in the POLR3A gene than in the general population. Orofacial function was less affected, despite moderate or severe gross motor impairment.

00100097**Website “Understanding Health Easily” barrier-free internet portal with health information in easy language****I.O. Olmos¹, I.K. Kaschke²**¹Department of Health, Special Olympics Germany, Berlin, Germany²Director Department of Health, Special Olympics Germany, Berlin, Germany**AIM(S)**

The aim of the accessible website is to provide people with intellectual disabilities (MmgB) and/ or users with limited reading skills/ language comprehension access to scientifically based health information in easy language on the Internet (supported by the German Ministry of Health, 2019-2023). Both the handling of health information on the Internet is to be promoted and health competencies of vulnerable groups are to be strengthened.

METHODS

The barrier-free website was created with extensive information, documents, contacts on the topic of health. The design is specific to the target group, taking into consideration (text, design, handling) of easy language with the use of visual material and a Read aloud function. This test for Easy Speech is done by a group of people with intellectual disabilities. Already available information and materials in easy language are brought together, further required materials are compiled and supplemented. This is done in close collaboration with the expertise of cooperation and network partners, such as the German Societies for Medicine / Dentistry for People with Intellectual Disabilities. The website is free of charge and advertising.

RESULTS

The website was created and the content continuously supplemented. There are currently 180 links and materials available with scientifically proven and

independent interdisciplinary health information and over 131 definitions of terms in the dictionary (www.gesundheit-leicht-verstehen.de). It was accepted in June 2021 as one of 17 health portals in the project "Reliable Health Knowledge" of the German Network for Health Literacy.

CONCLUSIONS

The platform is particularly characterized by its innovative character. The concept of making health information in easy language available to all users in a bundled, digital, interdepartmental and interdisciplinary form is unique in the German-speaking world and thus has a unique selling point. The platform continues to expand to provide vulnerable populations with reliable health information in plain language.

00100098**Woman with severe mental illness and oral pain.
An interdisciplinary collaboration between
dentist and physical therapist to obtain
acceptance for oral health care****T.B. Gran¹, M. Mahic², S. Abrahamsson¹, H. Nordgarden¹**¹Hospital Dental Clinic, Lovisenberg Diaconal Hospital, Oslo, Norway²National Resource Centre for Oral Health in Rare Diseases, Lovisenberg Diaconal Hospital, Oslo, Norway**CASE DESCRIPTION**

A 43-year-old woman with severe mental illness was referred by her psychologist to the hospital dental clinic due to pain, treatment needs and dental fear. She missed two molars in the lower jaw and had one cavity. Due to severe fear of dental treatment, all previous dental treatment had been done in general anaesthesia. She had good oral hygiene.

All jaw movements were painful, and we observed atrophy of the right m. masseter. She reported major problems eating, tasting, and smelling food, and lack of chewing ability on the right side.

In order to relieve the TMD-problems we made a dental splint, but she could not use it due to panic attacks. The physiotherapist was then involved for desensitization and training.

Activation, awareness of muscles, and coping through positive experiences were in focus for the next months of treatment. Combinations between activities in the shoulder, neck and jaw region combined with chewing activities and desensitization of the mouth area were introduced. She had regularly appointments with both dentist and physical therapist together at the hospital clinic. The same dental assistant was always present.

CLINICAL IMPLICATIONS

The patient's orofacial function improved during a 4-month treatment period. The pain and muscle stiffness decreased, while the tolerance for touch and functional use of the mouth improved. The patient became more aware of her facial gestures, tongue and jaw activities. Muscle strength and endurance improved, as well as her taste and sense of smell. She sat voluntarily in the dental chair and tolerated an ordinary examination of the mouth. She thought she would tolerate to have a cavity treated without sedation at the next visit

CONCLUSIONS

Orofacial stimulation and training can improve orofacial function and acceptance to examination and treatment. Interdisciplinary collaboration, individual training programs and small variations in daily routines are essential.

00100099

Teledentistry screening: An easy way to improve access and delivery of oral health care to people with disabilities

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AIM(S)

To assess the success of teledentistry screening in oral care of disabled people.

METHODS

Oral health examinations by remote screening from a cohort of 131 intellectually disabled people (average age: 36.8 years), accommodated in medico-social establishments (Carrières-sur-Seine, France). They volunteered to take part of this initiative which ran from January 2019 to February 2020. Users psychologically get prepared through habituation and/or relaxation sessions to accept the duration of dental examination. The oral medicine department of Louis Mourier Hospital (Colombes) performed dental diagnoses. A statistician processed data auditing, bivariate and multivariate analyses.

RESULTS

4 (3%) refused the clinical examination and 103 (79%) had a full examination. Among 127 users, only one had healthy gums and teeth, 124 (95%) had dental plaque and tartar. Among 103 users, 58 (56%) decayed teeth, 20 (19%) teeth in the root state, 61 (59%) missing teeth, and 54 (52%) filled teeth. These data worsen with age.

We defined 3 oral profiles:

- Class 1: 57 (44%) users with the worst oral health indicators (DMFT: 50 % between 7 and 11 50% \geq 12). 37 (65%) started dental care.
- Class 2: 28 (21%) users (refusals or incomplete examinations). 20 (71%) were referred to a health establishment. 9 (32%) started dental care.
- Class 3: 46 (35%) users the youngest with better oral health status (39 (85%) $<$ 40 years and 24 (52%) a DMFT $<$ 3). 21 (46%) started dental care.

CONCLUSIONS

The actions carried out in a “move-towards” approach have made it possible to carry out prevention/screening actions in oral health, a complete oral check-up for nearly 80% of the users of the cohort thanks to a preparation adapted, to develop a personalized care plan, to guide users and to start dental care for 51% of them.

00100100**Determining the actions required to improve the oral health of vulnerable adults in care homes across one geographical area in the SouthWest of England****S. Harford***Bristol Dental Hospital, Health Education England, Bristol, United Kingdom***AIM(S)**

Nationally, care home residents experience worse oral health than the general adult population. Many residents are dependent on oral care provision by care staff. There is inconsistent oral care provision and significant variation in the knowledge, training and support for staff. This study aimed in BNSSG ICS care homes, to:

1. Identify what oral care support and training exists for staff
2. Identify the gaps and unmet needs
3. Make strategic recommendations to ICS authorities to improve oral care support for care teams and the oral health of the care home population.

METHODS

The study was conducted on the 285 care homes across the Bristol, North Somerset and South Gloucestershire (BNSSG) Integrated Care System (ICS) and estimated population of 6,900.

1. Stakeholder mapping: identification and engagement of relevant stakeholders from adult health and social care and care home sector in BNSSG ICS, via semi-structured interviews
2. Context mapping: identification of mouth care training and support available for care home teams, via semi-structured interviews

3. Development of a report for ICS authorities outlining the findings and recommendations

RESULTS

Oral care provision for care home residents across the BNSSG ICS is inconsistent and training and support for care home staff is severely lacking. There is a high demand for but significant limit in the capacity of the oral health training providers in this geographical area (2 known providers). Only 2 care homes were given training by the only face-to-face training provider in the area (Community Dental oral health education team) in 2021.

CONCLUSIONS

The ICS is not currently prioritising improvement of oral health of the care home population.

A report and recommendations developed include: ICS ownership and prioritisation, development of interventions including awareness raising, commissioning oral health training and support for care home teams to align with national guidance; and inclusion of a dental care professional into the ICS care home multidisciplinary team.

00100102

Congenital arhinia in dentistry: A multidisciplinary approach

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CASE DESCRIPTION

The purpose of this study is to educate and prevent dental caries in a young uncooperative patient suffering from congenital arhinia.

CLINICAL IMPLICATIONS

The patient presented with a malformative syndrome characterized by congenital arhinia, hypoplasia of the olfactory bulbs, psychomotor retardation, enuresis, encopresis. The patient was receiving schooling with support and was poorly cooperative. Physical examination showed gingival hyperplasia, malocclusion, cross bite, premolar-canine transposition and diffused pain due to poor hygiene. Due to the lack of collaboration, an intervention under general anaesthesia balanced with IOT without curarization was planned for the necessary treatments: hygiene, sealing and gingivectomy. Contribution from the psychologist was required to listen and support the family during the process of taking charge. In the first phase psychoeducational and support interventions were provided to caregivers to manage the patient during treatment, promote more functional communication methods and a healthier lifestyle. The patient's resources must be solicited in order to reach the maximum possible understanding of the treatment and increase his collaboration.

In subsequent periodic check-ups, there was a clear improvement in collaboration with the operator and proper prevention of dental caries through the daily oral hygiene measures illustrated to the foster mother. Dental treatments have restored oral health by eliminating risk factors such as plaque and tartar and with the execution of fluoride seals for preventive purposes. The patient is sociable, the absence of pain allows a normal diet.

CONCLUSIONS

This study highlights the effectiveness of the multidisciplinary approach in the education and promotion of oral health and in prevention of dental caries in patients with disabilities. Periodic dental visits and psychological support have induced a clear improvement in patient compliance and greater attention to oral health, improving the patient's quality of life.

00100103

Should dentists wear white coats while treating special needs patients?

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AIM(S)

This study aimed to assess the views of special care patients and their caregivers on whether dentists should wear a white coat, or if other colours are preferred.

METHODS

Special needs patients attending a public special care dentistry department for a routine check-up and their caregivers were asked to assess their view related to their preference for white coat or other colours, using a questionnaire. The study lasted 2 months (February and March 2022). The surveyed population consisted of a total of 136 disabled patients (aged 6-25) and 136 caregivers (aged 22-36). Patients were asked: What's your favourite colour? Your dentist is dressed in: 1-blue, 2-white, 3-red? Are you afraid of your dentist? Caregivers were asked: When the dentist wears a white coat you feel like: 1-security, 2-anxiety? What is the ideal colour of the dentist's coat for you? Do you consider the white coat or other colours more professional?

RESULTS

30% (41) of patients prefer the yellow colour, 52% (71) have the dentist dressed in blue, 88% (120) are not afraid of their dentist. With regard to caregivers, 80% (109) see safety in the white coat, 38% (52) believe that white is the ideal

colour of the coat, while 23% (31) believe blue is ideal; 62% (84) believe that the white coat is more professional, 12% (16) believe that the green coat is more professional, 2% (3) believe that the blue coat is more professional, while 24% (33) believe that the colour of the coat has nothing to do with professionalism and best practice. The samples can be representative of special needs patients and of their caregivers ($p < 0.05$).

CONCLUSIONS

Special needs patients, aren't afraid of their "special" dentist and prefer a coloured medical coat and bright colours; their caregivers prefer dentist's white coat, considering it as a sign of safety and professionalism.

00100104**Dental management of vocal cord dysfunction – a clinical case****J. Gill, J. Bustin***Charles Clifford Dental Hospital, Sheffield, South Yorkshire, United Kingdom***CASE DESCRIPTION**

A young female patient was referred to the dental hospital requiring treatment, which was complicated by idiopathic vocal cord dysfunction (VCD). She reported a previous acute hospital admission in intensive care due to a VCD attack after dental treatment. She is under the care of Respiratory and Speech and Language therapy team (SLT). Medications included mirtazapine, citalopram and diazepam. VCD is caused by episodic unintentional closure of the vocal cords causing partial airway obstruction on inspiration. During an acute attack, which can be brought on by stress, on inspiration the vocal cords close causing an increase in inspiratory effort which causes the vocal cords to remain closed.

CLINICAL IMPLICATIONS

The patient presented with severe anxiety due to her previous experience. Initial examination revealed generalised plaque induced gingivitis, multiple carious lesions and chronic periapical pathology related to two premolars. To provide safe treatment, we liaised with the Respiratory team and SLT, which revealed successful management of acute attacks with use of Entonox (nitrous oxide-oxygen) and diazepam. Specific breathing techniques to keep vocal cords open were detailed.

Several treatment modalities were discussed, including sedation and general anaesthetic; a combination of inhalation nitrous oxide sedation, local anaesthetic and behavioural management techniques allowed the following to be completed:

1. Preventative advice: prescription of 0.619% sodium fluoride toothpaste and 0.05% sodium fluoride mouthwash, diet advice, tooth brushing instruction;

2. Restorations UR13456 UL1 LR35;
3. Commence root canal treatment LR4;
4. Extraction of UL5 LR6;
5. Surgical extraction LL7.

CONCLUSIONS

Providing dental treatment for patients with dental anxiety can be challenging; in combination with VCD there is an additional level of complexity. Completing surgical extractions with local anaesthetic was a successful outcome in this case – it highlights the importance of gaining patient confidence, and the powerful use of behavioural management techniques to avoid potentially life-threatening hospital admissions.

00100105**Oral pathologies and prevalent alterations in patients with infantile cerebral palsy****J.V. Oliveira, J.P. Chagas, M.F. Teixeira, G.S. Melo, C.H.D. Santos Júnior, T.G.S. Araújo, B.K.D. Moura, J.M.D. Santos Júnior***Faculdade Evangélica De Goianésia, Goianésia, Brazil***AIM(S)**

The study aimed to demonstrate the clinical importance of dentistry and the role of the dentist regarding the treatment of patients with special needs, focusing on infantile cerebral palsy, which the oral alterations are susceptible, due to their comorbidities.

METHODS

This research was done through a bibliographic bias, especially in resources of databases such as SciELO, PubMed and Google Scholar in the period from 2018 to 2022.

RESULTS

Cerebral palsy (CP) is a progressive alteration affected by movement and posture, where an early lesion of the brain occurs during development, but may cause before, during or after birth. Therefore, the participation and importance of the dentist regarding the integration and rehabilitation of these patients should not be restricted only in their knowledge, but rather to cover several others. Children with CP tend to have because of this deficiency the interference of their normal functions, which require greater care and help in their daily activities. They commonly present a high rate of oral and dental alterations and pathologies, such as malocclusion, bruxism, the incidence of caries and periodontal diseases. In addition to these, the low salivary flow rates, pH and buffer capacity and the risk of gingivitis development can be described. This occurs due to the impairment of motor performance that

directly affects salivary osmolarity, consequently, the increase in viscosity and molecular cohesion, making its fluidity impossible.

CONCLUSIONS

In view of the facts, children with special needs are susceptible to oral pathologies, due to their limitations in the cognitive and physical sphere. The education and guidance of those responsible for the maintenance of satisfactory oral hygiene should be worked as well as follow-up with a dentist.

00100106**Critical thinking on the social inequality and opportunities for access to oral health in the elderly community seen by the multi-professional healthcare centre in Rio de Janeiro****E. Sales¹, E. Lourenço², K. Maia²**¹*Undergraduate Student, School of Dentistry-Rio De Janeiro State University, Rio De Janeiro, Brazil*²*Undergraduate Professor in School of Dentistry-Rio De Janeiro State University, Rio De Janeiro, Brazil***AIM(S)**

Report on the level of oral health satisfaction in elderly with dental prosthesis who reside in the state of Rio de Janeiro and are seen by a multi-professional healthcare centre; relating the results to social class and healthcare services access.

METHODS

This study was substantiated by the insertion of dentistry in the healthcare service in the Rio de Janeiro State University Elderly Care Centre (Núcleo de Atenção ao Idoso da Universidade Estadual do Rio de Janeiro) throughout an undergraduate project. This study had as methodology, the data gathering once a week, in a five-month period of research. The inclusion criteria was: patients above 60 years old able to answer the questions from the questionnaire. Social information and info on the level of satisfaction concerning their dental prosthesis were collected. In total, 50 patients took part in the survey, being the sample compatible with the representativity of the audience concerning the day of the appointment. The studied group shows an error margin of 5%. A project questionnaire developed based on the Geriatric Oral Health Assessment Index was used with adaptations.

RESULTS

60% of the elderly group concluded the primary education and 58.9% had a family income of up to 2 minimum wages. Regarding their oral health, 57% haven't been to the dentist in the past 2 years and 2.5% have never had access to dental treatment. Concerning dental prosthesis, 81.8% had some sort of prosthetic rehabilitation, 47.5% were not satisfied with their upper prosthesis and 52% with their lower prosthesis. Referring to rehab time, 75% had the same prosthetic for 10 years or longer.

CONCLUSIONS

In conclusion, the person's social status directly influences their access to oral healthcare, increasing the need for extreme treatment such as dental extraction to obtain the prosthesis which contributes to reducing the person's life quality.

00100107**The importance of community dentistry: A dental care and cooperation project for patients with psychiatric disorders****C. Arriagada Vargas, P. Cisternas Pinto, M. Baeza Paredes,
S. Krämer Strenger, G. Pennacchiotti Vidal***Universidad De Chile, Santiago De Chile, Chile***AIM(S)**

To present the creation of a cooperation project between the Special Care Unit (SCU) of the Faculty of Dentistry, University of Chile (FDUCH) and the Psychiatric Institute "Dr. José Horwitz Barak" (PI).

METHODS

The collaborative project was created between the FDUCH and the PI, aimed at providing dental care to patients with psychiatric disorders, due to their high dental needs and difficulty in accessing care as inpatients of the PI. The project was carried out in 4 phases: the first was an oral examination of 4 units of patients at the psychiatric wards by the academics of the SCU to assess severity, establish diagnosis, plan treatment according to severity criteria. Phase 2 was the provision of dental treatment, at the SCU. Phase 3 was carried out simultaneously, with health promotion and prevention activities performed by the academics and students in the PI. Phase 4 consisted of two follow-up appointments with oral hygiene assessment after the dental treatment had been completed.

RESULTS

Phase 1: In 2018, we examined a total of 106 patients, establishing diagnosis and treatment plans for each person. Phase 2: From 2018 to 2021, 50 patients were treated at FDUCH as part of the undergraduate curriculum in

special care dentistry (5th year). A total of 250 conservative treatments, 100 periodontal treatment sessions and 60 extractions were carried out. Phase 3: 6 events were held, benefiting 67 patients, with an active engagement of 80 students and 10 academics. Phase 4: A total of 20 follow up appointments have been completed at the SCU.

CONCLUSIONS

This collaborative dental programme between the University and the PI allowed inpatients to access dental care, and simultaneously serves as a teaching opportunity for students to gain awareness about the importance of promoting access to a more inclusive dentistry for patients from vulnerable groups.

00100108

Mapping oral health outcomes for people with cerebral palsy: A scoping review

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AIM(S)

Studies have reported poorer oral health outcomes for people with cerebral palsy, but there has been no synthesis of the evidence surrounding this and, there are no clear oral health recommendations for people with cerebral palsy globally. This study investigated and mapped the literature to identify the reported oral health conditions experienced by people with cerebral palsy (CP) worldwide.

METHODS

A protocol for this scoping review was published with the Joanna Briggs Institute Methodology for Scoping Reviews in 2015. A comprehensive search of the literature utilizing a three-search-step strategy was conducted for both published and unpublished literature. Study outcomes were synthesized according to reported outcomes.

RESULTS

173 studies were included in this review. People with CP were at increased risk of tooth wear, bruxism periodontal disease, and poor oral health related quality of life. There was a lack of oral health research conducted which included adults with CP. A high number of studies had been conducted in

low- and middle-income countries. More research is required to guide the development of both policy and practice guidelines.

CONCLUSIONS

There is increased risk for poor oral health in people with cerebral palsy. Most of the research to date has a paediatric focus with limited research describing oral health outcomes amongst adults with CP. Further research on adults with CP will provide an understanding of the oral health care outcomes in the context of settings. Barriers to accessing dental care and oral health related quality of life of people with cerebral palsy requires further investigation. The authors advocate for the inclusion of CP classification systems and integration of disability inclusive language in future studies.

00100109

Using the technique of serial extractions in patients affected by Craniofacial Synostoses

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CASE DESCRIPTION

Craniosynostosis is a condition characterized by the premature closure of one or more cranial sutures that leads to an abnormal development of the skull and brain, and depending on the stenosis of the cranial suture can cause serious complications such as: developmental delay, facial abnormalities, neurological respiratory sensory dysfunctions, eye abnormalities and psychological disturbances. Therefore, early diagnosis, correct surgical technique, followed by proper follow up become important tools in treatment. It can occur as an isolated form or in the context of complex syndromic frameworks such as: Crouzon, Apert, Pfeiffer syndromes. In the latter the stenosis of the cranial sutures is associated with early closure of the synchondrosis of the basicranium and the circummaxillary sutures that must be evaluated by thin-layer CONE BEAN O TAC in order to define the correct therapeutic process. The incidence of these pathologies is respectively: Apert 6/15 every 100000 births, Pfeiffer per 100000 births, Crouzon 1.6 per 100000 births. The craniofacial characteristics of these three syndromes are similar and associated with a severe progressive class III, open bite, narrow palate and severe dental crowding with frequent inclusions and transpositions.

CLINICAL IMPLICATIONS

Within a sample of 42 patients suffering from craniofaciostenosis we analysed, as a clinical example, a patient with Crouzon syndrome followed at the Hospital San Gerardo in Monza and subjected to serial extraction treatment, given the impossibility to perform a maxillary expansion due to the early fusion of circummaxillary sutures documented by CT scan. Clinical photographs and radiological examinations (radiographs such as orthopantomography, telero-diographs and tomography) carried out during the treatment were collected.

CONCLUSIONS

At the end of the early evaluation of the digital stage by CT scan allows the definition of the most suitable treatment for the patient avoiding ineffective or even harmful attempts to palatal expansion reducing the burden of care.

00100110**Oral health status, dental treatment needs, and barriers to healthcare among older individuals with dementia****Y. Hassona¹, A. Ahmad¹, A. Ilham², S. Faleh¹**¹*School of Dentistry, The University of Jordan, Amman, Jordan*²*School of Dentistry, The University of Jordan, Dubai, United Arab Emirates***AIM(S)**

To evaluate the oral health status, dental treatment needs, and barriers to healthcare in older individuals with dementia.

METHODS

Older individuals with dementia attending the special care dentistry clinic at a university hospital were examined according to the method proposed by WHO. DMFT and gingival indices were recorded, and a face-to-face semi-structured interviews with care givers of individuals with dementia were conducted. All interviews were audio recorded and transcribed verbatim. Qualitative Framework Analysis was used to present the results.

RESULTS

A total of 64 patients (41 males and 23 females) with dementia were examined. The mean DMFT score was 5.64 ± 6.23 . More than half of patients (65.6%; n=42) were found to have high caries risk according to CAMBRA scale. Most of the DMFT score was contributed by decayed and missing teeth, and nearly all patients (93.7%; n=60) had chronic gingivitis. Less than 1/3 of patients (28.1%; n=18) received any form of dental treatment since the diagnosis of dementia. Eighteen care givers were interviewed. The interviewees reported that barriers to oral health care do occur on multiple levels: (a) home environment; (b) primary dental care; (c) secondary dental care facilities; (d) health and

education policies and systems; and (e) societal views on individuals with dementia.

CONCLUSIONS

Individuals with dementia have poor oral health status and unmet dental treatment needs. Barriers to oral healthcare do occur at multiple levels. Efforts are needed to establish better oral healthcare programs that are tailored to the needs of individuals with dementia.

00100111

Management of pemphigus vulgaris in an older female with severe intellectual disability

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CASE DESCRIPTION

A 64-year-old female with severe intellectual disability presented with a 2-month-history of dysphagia, loss of appetite, and mouth bleeding. The care giver reported that the patient lost 6 Kgs during the past 6 weeks and suffered from constipation and abdominal pain. Her medical history was remarkable for epilepsy which was controlled by Carbamazepine and Valproic acid.

Extraoral examination revealed bilateral cervical lymphadenopathy, conjunctivitis, and labial crusting. Initial oral examination was performed, with nitrous oxide sedation, and revealed coated tongue, malodour, and the presence of diffuse ulceration involving the entire mucosa and gingivae.

Further examination was performed under general anaesthesia and revealed pan-mucosal desquamation and pharyngeal ulceration. Oral biopsy for histopathology and direct immunofluorescence was performed under general anaesthesia, and revealed the presence of intra-epithelial clefting, mixed submucosal inflammatory infiltrate, and granular inter-cellular deposition of IgG and C3. During general anaesthesia, blood tests including basic labs and indirect immunofluorescence for anti-skin antibodies were requested. Complete blood counts, liver function test, and renal function test were all within normal. Indirect immunofluorescence assay was positive (titre=1:720) with speckled pattern. Clinical, pathological and immunological findings were consistent with the diagnosis of pemphigus vulgaris.

CLINICAL IMPLICATIONS

Conventional therapy with high dose oral steroid was not possible in this patient because of poor tolerance to oral intake. Infused steroid therapy

was initiated with methylprednisolone over 5 days. The patient showed rapid improvement and recovery of oral intake was evident at three days of starting treatment. The patient was discharged at day 5 and maintained on oral azathioprine.

CONCLUSIONS

Pemphigus vulgaris is rarely documented in patients with intellectual disability. Diagnosis and management are often challenging, and modifications from standard therapy might be needed according to the barriers imposed by patient's disability.

00100112**Unique teeth - a web-based search tool for dental health personnel, to aid in the diagnosis of rare disorders****O. Theisen*, H. Nordgarden, T. Berggren***Tako-Centre – Norwegian National Resource Centre for Oral Health in Rare Disorders, Oslo, Norway***AIM(S)**

Many patients with rare disorders have experienced diagnostic delay. Diagnosis of rare disorders can be challenging as many organ systems may be involved. Fragmented care, poor communication, and lack of understanding the whole patient may hinder the process. In Norway, most individuals have regular appointments with the dental team. However, reports of clinicians facing high levels of stress increases the risk that they fail to see and address uncommon symptoms or findings in the oral cavity as part of a bigger picture. Our aim is to develop a user-friendly, clinically relevant, web-based search tool for rare disorders with oral findings. The search tool will not be sufficient for diagnosis but aims to lower the threshold for dental personnel to explore beyond the expected, and to refer patients for further diagnostic investigations when appropriate.

METHODS

We developed a web-based search tool where dental professionals can select findings in teeth and the oral cavity and combine these findings with common signs and symptoms in the head and neck as well as other parts of the body. The inputs are matched with a structured database of rare disorders through a simple algorithm. The database is compiled through a systematic review of the literature and other clinical databases for each diagnosis. The algorithm utilizes this information to produce a short list of possible rare disorders, including clinically relevant findings, and a link to a short clinical description on the TAKO-centre's website. Potential users of the tool have given input to the project to ensure clinical relevance.

RESULTS

The framework and prototype of the tool are presented.

CONCLUSIONS

We expect that the search tool will be available by the end of December 2022.

00100113**Interdisciplinary collaboration and practical application of oral motor therapy (OMT) in two cases with reduced mouth opening in dystrophic epidermolysis bullosa (DEB)****M. Mahic, P. Östenson, A.H. Yttervoll, H. Nordgarden***National Resource Centre for Oral Health in Rare Disorders, Oslo, Norway***CASE DESCRIPTION**

Case 1: A 21-year-old woman was considered for wisdom tooth removal in general anaesthesia. She had a small mouth opening caused by significant scar tissue and reduced oral vestibule. She had rigid musculature in the orofacial area.

Case 2: A 10-year-old boy was referred for dental treatment, diagnosed with dental crowding and severe dental caries in a permanent molar. Tooth brushing was difficult due to reduced mouth opening.

To improve and maintain mouth opening before and after dental treatment, we made individualised and structured training and follow-up programs. The programs included stretching, oral motor exercises, and to make them more aware of their oral motor activities. Toothbrushes were individually adjusted. The patients maintained/improved orofacial function during the treatment period. Mouth opening varied in relation to training intensity. Both patients became more aware of their facial expressions, tongue, and jaw activities. Muscle strength and endurance, as well as speech improved. They also took more initiative in social contexts and communication. Both patients received dental treatment during the training period.

CLINICAL IMPLICATIONS

Individuals with DEB and reduced orofacial function may benefit from interdisciplinary health services. Increasing mouth opening and adapting dental

hygiene products may easy prophylactic measures as well as dental treatment. The exercises should be adjusted to fit with the patient's daily activities, symptoms, general condition, and motivation. This means that both the choice of exercises and the intensity of the training may vary over time to maintain or improve quality of life.

CONCLUSIONS

Orofacial training may improve oral motor skills and mouth opening, and hence improve oral health in patients with DEB. Individualised stimulation and training programs are important.

Small variations in daily routines can have an impact on oral function. Changing challenges over time requires continuous evaluation and adaptation of the programs.

00100114

Improving health outcomes for cardiac transplant patients: Developing a national dental protocol

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AIM(S)

Cardiac transplant patients require dental assessment prior to acceptance onto the waiting list, aiming to optimise oral health, record soft tissue baseline, remove sources of pathology and odontogenic infection, and reduce risk of pathology compromising a patients place on the waiting list. Achieving and maintaining oral health is essential. Following transplant, patients are immunosuppressed and at increased risk of odontogenic infections and malignancy.

To provide safe, consistently high-quality care to all cardiac transplant candidates and recipients pre- and post-treatment there is the need to create a nationally accepted protocol.

METHODS

A 12-month quality improvement project from January 2021 – January 2022 was undertaken to assess the dental care of pre- and post-cardiac transplant patients. We found no consistent protocol between local colleagues and multiple centres within the UK. Assessment of the literature, creation of proformas, local and national presentations and national meetings were used to create a protocol through collaboration with Special Care Dentistry teams in Glasgow, London, Newcastle, and Birmingham. We also invited feedback from the Scottish National Advanced Heart Failure Service.

RESULTS

The protocol is made up of the 4 distinct groups of dental patients during their cardiac transplant journey: 1. Patients being considered for cardiac transplant; 2. Patients accepted onto the cardiac transplant waiting list: these can be further categorised into routine, urgent and super urgent; 3. Patients with a ventricular assist device in situ; 4. Patients post cardiac transplant. The protocol details recommendations from referral, assessment, treatment planning and beyond to achieve and maintain oral health that reduces risk of dental pathology compromising the patients cardiac transplant journey.

CONCLUSIONS

Protocols and guidelines regarding dental care throughout cardiac transplantation are rare and lack consistency. Creation of a comprehensive oral care protocol can be used as a guide to improve patient outcomes and consistent dental care nationally.

00100115**Practical application of alternative communication, body position and stabilisation in a patient with a rare disorder****M. Mahic, A. Rossow, H. Nordgarden***National Resource Centre for Oral Health in Rare Disorders, Lovisenberg Diaconal Hospital, Oslo, Norway***CASE DESCRIPTION**

A five-year-old girl with a mutation in the *AFF3* gene, causing dysmelia, epilepsy, hypotonia, microcephaly, and delayed development, was referred to our centre. The local dental clinic requested help and advice in order to perform an oral examination. The patient received medication for epilepsy and was troubled by vomiting and gastroesophageal reflux. She did not eat any food through the mouth and had a percutaneous gastrostomy placed when she was four years of age. She communicated through eye movements and sounds. A dentist and a physiotherapist in our centre met her and assessed biological, psychological, and cognitive factors when planning and implementing activities aimed at obtaining acceptance to oral hygiene measures, oral examination, and treatment. A low arousal approach, adapted communication, body positioning, and stabilisation helped the patient to accept stimulation, touch, and examination. All activities were filmed, and we made an instructional video for the personnel at her local dental clinic. This helped them to adjust the activities to their local environment. The caregivers consented to making this video.

CLINICAL IMPLICATIONS

Use of video may help local professionals, with less experience with patients with special health care needs, to understand how to approach a particular patient. Improving their knowledge about the basic needs of the patient is important to help the patient to have more positive experiences in the dental chair.

CONCLUSIONS

A low arousal approach, alternative communication, body positioning, and stabilisation are helpful for many patients to accept oral examination. The approach must be individualised. Use of instructional videos may be an effective tool in the cooperation between a specialised oral health centre and local dental personnel.

00100116**The use of silver fluoride for the conservative management of radiation caries****M. Lim***Melbourne Dental School, Alfred Health, Royal Melbourne Hospital, Melbourne, Australia***CASE DESCRIPTION**

Two cases are presented of patients with a history of head and neck cancer managed with radiotherapy. Neither received a pre-radiotherapy dental assessment, and were referred for the management of significant caries-related deterioration of their teeth and associated symptoms of cold temperature sensitivity. Caries management in each case consisted of a technique utilising the application of an ammonia-free, water-based formulation of silver fluoride/stannous fluoride to stabilise and arrest the carious lesions, reduce symptoms, and allow for improvement of oral hygiene to enable eventual restoration of plaque-retentive lesions. Initial conservative management using chemical means minimised the need for surgical removal of caries, thus preserving vital tooth structure. Ongoing follow-up of these patients demonstrated the stability of these lesions and absence of symptoms using this technique.

CLINICAL IMPLICATIONS

These cases demonstrate promising results related to the use of silver fluoride formulations for the conservative management of radiation-related dental caries. The use of such agents for the chemical management of these lesions may offer a minimally-invasive and potentially consistent technique for management of presentations of radiation caries that often present a dilemma for many clinicians.

CONCLUSIONS

Silver fluoride formulations may offer promise as a novel technique for the predictable management of radiation caries. Use of chemical caries management in this setting may reduce the need for traditional surgical preparation of these teeth.

00100117**Evaluation of the autonomic nervous function of disabled persons in dental treatment using heart rate variability analysis and electrodermal activity****M. Sawaguchi, S. Oshima, T. Yosihara, Y. Yawaka***Dentistry for Children and Disabled Persons, Hokkaido University Faculty of Dental Medicine, Sapporo, Japan***AIM(S)**

The purpose of this study was to evaluate the effects of dental practices on autonomic nervous system (ANS) function by simultaneously analysing heart rate variability and measuring component of electrodermal activity (EDA) during dental treatments (tooth brushing and ultrasonic scaling) for patients with severe mental and physical disability (SMID).

METHODS

The subjects were 16 patients (6 males and 10 females) with SMID aged 16 and over. We recorded electrocardiogram findings obtained during examinations, which were divided into following session; before the treatment, brushing, scaling, and after treatment. We also evaluated ANS in the subjects by analysing power spectral results at high frequency (HF,>0.15 Hz),low frequency (LF,0.05-0.15 Hz), and ratio of HF and LF (LF/HF), as well as the coefficient of variation of R-R intervals (CVRR) and heart rate (HR). Simultaneously, skin potential level (SPL), a component of EDA, was recorded to assess stresses in the subjects. For the analysis, we examined the relationships among these physiological indicators (SPL, HF, LF, LF/HF, CVRR, HR) in each session.

RESULTS

The results showed that LF and CVRR during scaling was significantly higher than that of before the treatments. SPL indicated over the baseline (>3%) in 13 of 16 patients during scaling, whereas in 2 of 16 patients during brushing.

CONCLUSIONS

Our findings suggest that scaling may be a stressor and that it is possible to evaluate ANS function using heart rate variability analysis and EDA during dental treatments for SMID patients.

00100118**Dental caries treatments of a patient with congenital epidermolysis bullosa: A case report****Y. Yawaka, A. Takahama, M. Nishiura, M. Sawaguchi, S. Oshima***Dentistry for Children and Disabled Persons, Hokkaido University Faculty of Dental Medicine, Sapporo, Japan***CASE DESCRIPTION**

Congenital epidermolysis bullosa (CEB) is a group of hereditary diseases. It consists of blistering of the skin and mucous membranes in response to minimal trauma. Congenital nephrotic syndrome (CNS) is a kidney condition that begins in infancy and typically leads to irreversible kidney failure by early childhood.

CLINICAL IMPLICATIONS

We experienced the case of a 3-year and 11-month-old girl with CEB, CNS and mental retardation who visited our clinic for sever multiple dental caries. Oral examination revealed that she had 18 of 20 primary teeth with dental caries. And 11 of 18 primary teeth were diagnosed pulpitis. Her developmental age was 2 years old. Her behaviour control was difficult.

We planned the dental caries treatments under a general anaesthesia (GA), since there were some influences on her skin by the body restrain. However, the condition of her kidney went from bad to worse, it was given priority to the renal transplantation. Therefore, we had to treat 11 teeth with severe dental caries as the removal of the infection source without GA. We got the important advice from the dermatology at our hospital, and used a wound covering protective material during her dental treatments under the restrain. The results were good. Her skin was kept good condition.

And then the renal transplantation was successful. We continue the periodic oral management using the protective material under the restraint. There is no problem on her skin.

CONCLUSIONS

Using the wound covering protective material is good for the skin of CEB patient.

00100119**Disability and oral health: The need for support in residential homes for the disabled in France****C. Hvostoff¹, M. Bracconi², C. Rey-Quinio³, A. Michault³**¹Hôpital Les Magnolias, Ballainvilliers, France²La Croix Rouge, Paris, France³Ars Ile De France, Paris, France**AIM(S)**

In France, care for disabled people is provided in Établissement et Services Medico-Sociaux (ESMS). This abstract reports a project subsidized by Agence Régionale de Santé (ARS) to improve oral health in ESMS in one French region. This study aimed to evaluate the oral health needs of patients resident in ESMS and the impact on their oral health when followed-up by the staff and their family after an oral health promotion action.

METHODS

Twenty ESMS, of the 23 in the region, took part in this study. Of their 941 residents, 663, aged 5 – 71 years, were screened. A dentist carried out staff and family training, during oral brushing workshops. Screening and an online feedback questionnaire was completed in the ESMSs two months after the intervention. Data were processed using SPSS software and qualitative analysis was conducted using the SWOT matrix. Prior consent was obtained from the families / tutors and approved by the ARS.

RESULTS

66 (10%) patients refused screening. 456 (70%) residents needed periodontal care, 136 (21%) needed restorative treatment, 63 (10%) needed minor surgery, 26 (6%) needed dentures. 551 (84%) patients were referred for care, while 91 (14%) were orally healthy. 300 health professionals were trained. 596 (95%) residents

had a toothbrush, but most avoided brushing because of behavioural (reported by 15 ESMS /21 (75%) and/or communication problems (reported by 18 ESMS/21(85%)) and/or lack of time (reported by 7 ESMS/21 (30%)). Prior to the action, four facilities did not record any oral health follow-up, seven recorded partial follow-up and nine recorded follow-up for all their residents. After the action, 17 facilities performed follow-up for all residents, 3 performed partial follow-up, one did not.

CONCLUSIONS

While the action led to a better follow-up of residents, oral health remain a concern and ESMS require long term support.

00100120

Characteristics of patients in need of dental treatment under general anaesthesia

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AIM(S)

Dental treatment under general anaesthesia (GA) is an option when conventional treatment cannot be accomplished due to lack of co-operation and systemic or intellectual disabilities. The aim of this retrospective study was to describe characteristics of, and dental treatment needs in patients referred for dental treatment under GA in the Public Dental Services in Oslo.

METHODS

All patients receiving dental treatment under GA in 2016 were included. Data was extracted from dental records and included: age, health conditions, reason for referral, recorded symptoms, dmft/DMFT and received treatment. Data was analysed using SPSS. The study was performed as part of quality assurance system required by law in the dental services, and did not require ethical approval. Anonymized data was recorded.

RESULTS

In total 173 patients aged 2-71 years were included. Half, 95 patients (55%), were children and adolescents. The majority, 141 patients (82%), had one or more medical disorders, whereas 32 patients (18%) were medically healthy. The most common medical disorder was intellectual disability followed by epilepsy, autism spectrum disorder (ASD), genetic syndromes and cerebral palsy. Sixteen genetic syndromes were registered; Downs syndrome was

most common. Barriers for conventional treatment were dental behaviour management problems, anxiety, immaturity, spasm and gagging. The most frequent dental reason for referral was caries (97 patients (56%)). In 55 patients (32%), patients or caregivers reported oral symptoms. Mean dmft for pre-school children (≤ 5 years) was 8.5 (SD 5.9), for children and adolescents 3.1 (SD 3.3) and for adults (>18 years) 12.5 (SD 11.9). Restorative treatment was performed in 141 patients (82%) and extractions in 107 (62%). Other dental treatments were endodontic, periodontal, prosthodontic, surgical, orthodontic and prophylactic treatments.

CONCLUSIONS

Treatment in GA was received by a heterogenic group with varied and extensive treatment needs. The majority of patients treated under GA had intellectual disability.

00100121

The quality and readability of online health information available regarding exodontia prior to head and neck radiotherapy

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AIM(S)

Osteoradionecrosis of the jaw (ORNJ) remains a rare, but clinically significant, complication of radiotherapy for the management of head and neck cancer (HNC). The removal of teeth of poor prognosis and a later source of infection, which may underlie ORNJ, is commonly advocated. Exodontia is advised before commencement of radiotherapy; thus, patients may have little time to make an informed decision as to whether they are truly agreeable to dental extractions.

Many individuals search online for information about dental extractions before radiotherapy and the risks of ORNJ. However, the accuracy and ease of reading information available online has never been formally investigated. The present study aimed to assess the quality and readability of online information surrounding exodontia and ORNJ.

METHODS

An online search was carried out on Google using terms; 'Why are teeth removed before radiotherapy?' and 'osteoradionecrosis'. The first 50 links gained for each term were accessed and their content assessed for quality (DISCERN tool, Journal of the American Medical Association JAMA benchmarks) and readability (Flesch Reading Ease Score (FRES) and Flesch-Kincaid Grade Level (FKGL)). Research papers were excluded.

RESULTS

Only 2 (8%) of websites achieved all four of the JAMA benchmarks. Websites informing patients on osteoradionecrosis and pre-radiotherapy dental extractions had an average overall DISCERN score of 2.04 (± 0.45) and 2.77 (± 0.76), respectively. Average FRES and FKGL scores were 47.64 (± 15.30) and 10.30 (± 2.94), respectively. Readability across all sites was low with content exceeding the average reading grade level.

CONCLUSIONS

Information available online about exodontia before radiotherapy and osteoradionecrosis are of poor quality and readability. Many patients and/or their carers may find it challenging to appreciate the significance of the information. There is a need to determine the content and format of information delivered to patients to ensure they understand the significance of exodontia as part of the management of HNC.

00100122**Effectiveness of behaviour modification in persons with autism spectrum disorders who refuse oral examinations at the first visit****K. Suzuki¹, K. Fukami², Y. Honda², S. Naito², N. Muramatsu², T. Ogasawara³**¹Matsumoto Dental University, Graduate School of Oral Medicine, Shiojiri, Japan²The Clinic for Special Needs Dentistry, Nishio City, Nishio, Japan³Yokosuna Dental Clinic, Shizuoka, Japan**CASE DESCRIPTION**

It is often difficult to perform an oral examination on persons with autism spectrum disorders at the first visit. There are some who can and some who cannot receive an oral examination due to behaviour modification. Therefore, in this study, we examined the criteria for those who can undergo oral examination due to behaviour modification in autism spectrum disorder.

METHODS

The subjects of the survey were 18 autism spectrum disorder patients who visited the Clinic for Special Needs Dentistry, Nishio City for the Disabled for the first time. This study was conducted with the approval of the Institutional Review Board of the Japanese Society for Disability and Oral Health (approval number 19017). Their mothers were interviewed about their disability characteristics, dental and medical treatment experience, and developmental tests were performed. After evaluating the adaptability at the first visit, the same person in charge trained each time. A decision tree analysis was performed with 32 items as the explanatory variables, with the objective variable being "possible/ impossible for oral examination".

CLINICAL IMPLICATIONS

All those who were less than 3 ½ years of the developmental age(DA) of hand movement and could not sit in the clinic at the time of the first visit could not receive an oral examination due to behaviour modification. 87.5% of those over 3 ½ years of DA of hand movement accepted oral examination without refusal.

CONCLUSIONS

People with ASD whose DA of hand movement is 3.5 years or older are likely to be able to adapt to oral examination due to behaviour modification. It was revealed that those who are less than 3.5 years old of DA in hand movement and cannot sit down on the dental chair at the first visit cannot be recommended to carry out the behaviour modification and need to wait to develop.

00100123

The activity of salivary xanthine oxidase (XO) in stroke patients

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AIM(S)

The research study aimed to assess the activity of xanthine oxidase in the saliva of stroke patients.

METHODS

The study group consisted of twenty-four patients (twelve with ischemic and twelve with haemorrhagic stroke) in the subacute phase of the disease. The control group included 24 healthy individuals similar to the cerebral stroke patients regarding gender, age, and status of the dentition, periodontium, and oral hygiene. The study material was mixed non-stimulated whole saliva.

RESULTS

The salivary activity of xanthine oxidase was significantly higher in ischemic stroke individuals than in haemorrhagic stroke patients and healthy controls. Receiver operating curve (ROC) analysis showed that XO salivary activity distinguishes ischemic stroke from haemorrhagic stroke and controls with very high sensitivity and specificity. Salivary XO also differentiates with high specificity and accuracy between stroke patients with mild to moderate cognitive decline.

CONCLUSIONS

The present research revealed the potential utility of salivary XO in differential stroke diagnosis. Salivary XO evaluation might also be a potential screening tool for a comprehensive neuropsychological assessment.

00100124

Removal of dental plaque with a new three-sided dual head toothbrush in patients with acquired brain damage

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AIM(S)

To assess the efficacy of a new toothbrush (Balene) for the mechanical removal of dental plaque in a group of patients with acquired brain damage, applying autonomous and assisted toothbrushing techniques.

METHODS

The study group consisted of 25 adults with acquired brain damage (12 men and 13 women between the ages of 41 and 74 years) who were members of the Alento association (Vigo, Spain). We designed a clinical crossover trial applying simple randomized sampling in which the participants underwent 2 sessions of toothbrushing lasting 1 minute, one with a conventional toothbrush and the other with the Balene toothbrush. This new toothbrush is characterized by a double head with 6 active sides, which allows for the simultaneous brushing of both alveolar arches. Its bristles are elastomer (polyurethane) and are angled at 45°. The handle rotates up to 180°. Therefore, the user does not need to remove the toothbrush from the oral cavity while brushing their teeth. The independent variables recorded were the type of toothbrush (Balene vs. conventional) and the brushing modality (assisted vs. autonomous). The outcome variable was the reduction in visible dental plaque, recorded using the simplified oral hygiene index of Greene and Vermillion.

RESULTS

The brushing was autonomous for 9 participants and assisted for the remaining 16. The total plaque index before and after toothbrushing with Balene decreased significantly ($p < 0.001$). The total plaque index before and after toothbrushing with the conventional toothbrush also decreased significantly ($p < 0.001$). The efficacy of dental plaque removal was similar with the two toothbrushes. There were also no statistically significant differences in total plaque removal between the patient group with autonomous brushing and the group with assisted brushing ($p = 0.345$).

CONCLUSIONS

For patients with acquired brain damage, the Balene toothbrush was as effective as a conventional brush, regardless of whether the toothbrushing technique was autonomous or assisted.

00100125

Relationship between the number of functional dental contacts and cognitive impairment in elderly patients: A longitudinal study at 3 years

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AIM(S)

To determine whether there is a relationship between the number and/or nature (natural/artificial) of functional dental contacts and cognitive impairment in institutionalized elderly patients.

METHODS

For 3 years, we conducted a longitudinal study with an initial sample of 259 white men institutionalized in the "Assisted Living for the Elderly of Oleiros" (A Coruña, Spain). By the second year, the sample had 186 participants; by the third year, the final sample had 141 participants. The general information (sex, age, education level and diet) of all participants was recorded. The participants annually underwent the Mini Cognitive Exam (MCE), a variant of the Mini-Mental Test, to determine the degree of cognitive impairment. We recorded dental variables such as the number of functional dental contacts (pairs of opposing teeth that come into contact in occlusion), the presence/absence of bilateral occlusion, the type of contact (combinations of natural and artificial teeth) and the number of contacts of each type. To analyse the statistical relationship between the functional dental contacts and the continuous response variable (MCE values), we applied a generalized linear model (GLM).

RESULTS

The participants' age was 65–102 years (mean, 84.3 ± 0.4 years). The MCE score decreased progressively in the 3 annual measurements, with mean scores of 9.10, 8.06 and 6.99, respectively. In the measurement of the baseline MCE, a high number of functional dental contacts was significantly associated with a lower probability of cognitive impairment, regardless of the nature of the contact and of its location (deviation, 30.1%). In the longitudinal analysis at 3 years, the general variables that significantly determined the MCE scores were the type of diet and the number of functional dental contacts (deviation, 25.5%).

CONCLUSIONS

In older white institutionalized adults, the absolute number of functional dental contacts was significantly related to MCE scores and with the rate of cognitive deterioration.

00100126

The disabled dental patient in Italy: Acceptance and course of treatment

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AIM(S)

Prevention, diagnosis and therapy, for disabled patients needs different time and expertise compared to usual dental routine. Thus, the purpose of this study is to present a model of realizing and implementing specialized dental services towards vulnerable subjects to ensure diagnostic and therapeutic courses, that would help accepting and taking over uncooperative or scarcely cooperative patients too.

METHODS

Every patient who is given an exemption for disability, which could be temporary or permanent and total as well as partial, can access this type of clinics. The acceptance of the patient happens on proposal of the territorial service with prior evaluation of the patient's compliance, considering his degree of disability according to comorbidity, by the dental representative. The patients target involves intellectual and sensory disabilities, genetic and neurological pathologies, congenital or degenerative. Primary health cares are provided on an outpatient basis or under Day Hospital. The medical staff is properly trained on disabilities and the case manager is always present. The specialistic evaluation identifies the demand and complexity of the required procedure. This discerns low-complexity procedures, that can be operated at the dental

clinic, from high-complexity ones, that foresee a Day Hospital course, with pre-surgical exams, an anaesthetic consultation and the following intervention to operate through Day Surgery.

RESULTS

We propose an organizational, nursing and clinical model for the dental management of patients with “special” needs, which could offer the better health care available in the least possible time.

CONCLUSIONS

This model must satisfy both needs and requests at the same time by implementing specialized clinics in proper and safe environments; creating multidisciplinary work groups with shared protocols; continuously and specifically training the medical staff to take over and treat vulnerable subjects with “special” needs.

00100127

What's the difference? A report of 2 cases describing the dental implications of hypophosphatasia and hypophosphataemia

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CASE DESCRIPTION

Case 1:

A 1-year-old male patient was referred to the Bradford CDS in 2004 due to mobility of their ULA thought to be secondary to trauma. Several teeth were found to be mobile. The infant was referred for a paediatric opinion and was diagnosed with hypophosphatasia. Several of his primary teeth were extracted due to premature mobility. He re-attended at 19 years old with mobility of his permanent teeth. He also had several carious lesions and required restorative treatment.

Case 2:

In 2013, a 6-year-old girl was referred to the Bradford CDS. It was hoped to exclude dental symptoms associated with an unexplained case of metaphyseal dysplasia. She was later diagnosed with hypophosphataemic rickets. She re-presented at 15 years old and was found to have delayed eruption of LR7, UR7, UR5 and arrested eruption of the LL3 despite sufficient eruption space. The URE was submerged. She also had a deep pitted carious lesion in the labial surface of her UR2. The lesion was treated, and the patient required an orthodontic referral to plan for the best outcome of the impacted teeth.

CLINICAL IMPLICATIONS

The objective of these reports is to highlight the complex dental implications of hypophosphatasia and hypophosphatemia. There are several types of these conditions, and they may all impact upon dental health. In hypophosphatasia, the mineralisation of the hard tissues is affected, and patients may experience premature tooth exfoliation. In hypophosphataemia, patients are at risk of delayed dental development and spontaneous dental abscesses. Detailed management of these cases will be described in this report.

CONCLUSIONS

The first manifestation of this range of diseases may be dental, so the dental professional might play an important role in early diagnosis. Special care dentists should be aware of the dental implications of these conditions so that such cases can be managed appropriately.

00100128**Sedation considerations for older adults with dementia****S.M. Moosajee, J.E. Edwards, S.R. Rafique, J.P. Patel***King's College London, London, United Kingdom***CASE DESCRIPTION**

An 83-year-old man with advanced dementia was seen with his wife as he had developed a sinus on the gum of the lower left first molar (LL6). A limited examination led to an initial diagnosis of chronic periapical abscess associated with the LL6. His wife had lasting power of attorney and the options of general anaesthesia and intravenous sedation were discussed to facilitate removal of the LL6. Due to the increased risk of post-operative morbidity associated with general anaesthesia a consensus was reached that intravenous sedation was more appropriate. This patient was sedated on clinic, and despite a short window of sedation the tooth was removed. Two months later the patient attended again with pain from a broken lower right molar. The patient was again sedated, and a fractured crown fragment was removed from the lower right second molar (LR7). The patient was not able to cooperate fully with extraction of the LR7, therefore has been referred to a comprehensive geriatric assessment team, for optimisation prior to a general anaesthetic.

CLINICAL IMPLICATIONS

Pre-operative, peri – operative and post - operative considerations are required when deciding between general anaesthesia and sedation. Factors such as frailty and co-morbidities can indicate the risk of negative outcomes during and post treatment. Certain drugs such as antihypertensives may need to be adjusted pre-operatively. During treatment reduced and titrated drug doses should be given. General anaesthesia has an increased risk of post-operative immobility and delirium.

CONCLUSIONS

Patients with advanced dementia exhibit behavioural and personality changes that can make it difficult for them to cooperate with dental treatment without sedation or general anaesthesia. This can lead to a difficult decision process for the clinician about which is in the patient's best interest. Liaison with a comprehensive geriatric team can help to improve patient safety at every stage.

00100129**Improving outpatient communication within the special care department at king's college dental institute****J.P. Patel, S.M. Moosajee, S.R. Rafique, J.E. Edwards***King's College Hospital, Purley, United Kingdom***AIM(S)**

An audit of outpatient assessment letters was carried out against Professional Record Standards Body (PRSB) standards. These standards are used by doctors, nurses and other allied professionals who encounter outpatients to structure letters and ensure that the content is standardised and reliable to optimise sharing of information and care. No similar standards exist for the dental profession within England. The findings will be used to identify areas where changes are needed.

METHODS

Data collection was retrospective. Three letters were assessed from seven consultants within the department, from the 01.09.2021. The data collection tool was a modified version of the PRSB standard, which was amended to remove elements that would not be relevant in the dental setting such as medication names and dosages. Thirty-nine elements were assessed for their inclusion in the letter such as patient name, attendance details, diagnosis name, clinical summary, and legal issues. These were subdivided into three categories which were mandatory, required (required in the letter if recorded in the patient notes), and optional.

RESULTS

At present there is a letter template that is generated by the electronic patient records system that automatically generates aspects of the audited letters such as patient address, NHS number and clinician signatures. These areas

are where compliance was good. Poorer compliance was found in elements including history of presenting complaint, diagnoses, and clinical summary.

CONCLUSIONS

Key elements were not included in letters relating to patient diagnoses and clinical findings. The Academy of Medical Royal Colleges states that the out-patient letters should aim to improve the relationship between the patient and doctor and should aid understanding on information that was shared during a consultation. Liaison with the Patient Experience Team has led to a new template being produced, which will be used to write directly to the patient.

00100130**A qualitative study exploring the experiences of oral health in palliative care****R. Iles***Smile Together Dental Cc, Cornwall, United Kingdom***AIM(S)**

The aim of this study was to explore and describe the experiences of, and attitudes towards, oral health among patients receiving, and healthcare professionals providing, hospice based palliative care.

METHODS

A qualitative phenomenological approach was adopted, which employed methodological triangulation using three sets of data collection; a hospice-based observational study, focus groups with palliative healthcare staff and semi-structured interviews with palliative care patients. This study was carried out at the renowned St Christopher's Hospice, which founded by Dame Cicely Saunders, is a centre of innovation in hospice and palliative care. Twenty semi-structured interviews were carried out and three focus groups. Thematic analysis was employed to analyse the data, which allowed progression from reading different individuals' personal stories to extracting the shared, and different, experiences across the participants. Ethical approval was obtained from Kings College London and written consent obtained prior to participation.

RESULTS

Oral health and oral care were acknowledged as important by palliative care patients and staff. Several oral conditions were identified as prevalent in palliative and end of life care, which can significantly impact on quality of life. The majority of these conditions are managed by doctors and nurses, who have had limited training on the mouth, and lack clear guidance to follow.

Dental professionals are not included in the palliative care multidisciplinary team and a number of barriers exist for this group when accessing dental care.

CONCLUSIONS

This research has shown that oral health is an extremely important, but neglected, area of palliative care, which plays a crucial role in conserving comfort, socialisation and dignity during this important phase of life. The input of dental professionals is paramount, as is the need for training of palliative care professionals and the establishment of clear guidelines if we are to reduce the oral health inequalities currently experienced.

00100131**Pigment incontinence or Bloch-Sulzberger syndrome: Clinical case report****G.P. Almeida, D.R. Silva, L.B.S. Vieira, E.S. Godoi, J.M. Santos Junior, L.S.A.E. Alves***Faculdade Evangélica De Goianésia, Goianésia, Brazil***CASE DESCRIPTION**

A female patient, 3 years old, accompanied by the mother, presented with a complaint of the lack of teeth, hypodontia, microdontia, delayed eruption, hypoplasia in some teeth, early caries and left posterior crossbite were found. In the medical history, in the neonatal period presented some vesicular and bousous skin lesions, distributed heterogeneously by the body surface, which burst and became hyperpigmented. The mother presented dental absences, microdontia and posterior crossbite.

CLINICAL IMPLICATIONS

Pigmentary incontinence (PI) known as Block-Sulzberger syndrome or Bloch-Siemens syndrome. It is a dominant mutation linked to the X chromosome. The rare genodermatosis condition, affects XX fetuses, in these to a compensation of the defective genes, in the XY foetus it is usually lethal. PI has specific signs and symptoms and has four phases: vesicular phase, appearance of inline vesicles; verrucous phase, arises in the process of healing the blisters; pigmentary phase, brownish pigmentation bands following Blaschko lines; atrophic phase, linear areas of depigmented skin without hair. They may follow neurological manifestations such as mental disability, motor abnormalities, and seizures. A frequent finding in PI are dental alterations, which are accessory cusps, microdontia, hypodontia and late eruption. Its differential diagnosis may be ectodermal dysplasia. Treatment should be multidisciplinary with periodic follow-up.

CONCLUSIONS

Although the only treatment is to relieve the symptoms of the manifestations of the disease; knowledge of oral manifestations of Bloch-Sulzberger syndrome is of fundamental importance since dental abnormalities are the most common manifestations of this disorder.

00100132**Assistive technologies in dentistry for patients with special needs****A.C.L. Xavier, A.G. Vieira, A.C.F. Coelho, G.P. Braga, R.P. Braga, A.C.S. Ferreira, M.F. Teixeira, J.M. Santos Junior***Faceg, Goianesia, Brazil***AIM(S)**

The present study aims to demonstrate by means of a literature review the assistive technologies during dental care performed in patients who present special needs.

METHODS

The scientific bases used to select articles based on the theme were Scielo, Pubmed, in the period 2015-2021. In the selected articles subjects were cited, in particular, how assistive technologies in dentistry can help in the personal and social development of the patient.

RESULTS

Special needs patients (SNP) are individuals who have physical, mental, social or behavioural limitations. Because of this, special needs patients require specialized medical/dental care in order to maximize the quality and longevity of the procedures performed. Through these difficulties faced by the dental surgeon, assistive technologies will help in the interaction and will provide support to perform the care to these patients. Assistive technologies (AT) have been a little-known term, but it is used to find resources and services that help provide functional abilities to patients, seeking to promote autonomy, inclusion, as well as assistance in day-to-day activities, in order to improve the quality of life of these patients. To minimize the limitations of patients with special needs, resources have been developed to help in oral hygiene,

such as adapted toothbrushes, so that the patient can use them. However, other assistive technologies help patients with needs, such as mouth openers that facilitate dental care.

CONCLUSIONS

It can be concluded that the assistive technologies employed for patients with special needs make daily oral hygiene easier, bringing greater safety to the services performed. Finally, it is necessary that the dental surgeon along with his team promotes the treatment always respecting the limitation of each patient.

00100133**The importance of the binomial: Conscious sedation and the treatment of ASD (Autism Spectrum Disorder), in dentistry****A.G. Vieira, A.C.F. Coelho, G.P. Braga, A.C.L. Xavier, R.P. Braga, A.C.S.F. Ferreira, M.F. Teixeira, J.M. Santos Júnior***Faceg, Goiané, Brazil***AIM(S)**

The following study is a systematic review of autism spectrum disorder (ASD), correlated with oral treatment, drugs, and inhalation sedation.

METHODS

Articles associated with the topic were previously selected from scientific databases such as PubMed and MEDLINE, published between 2012-2022. In the final selection, the chosen articles were those that met the eligibility criteria, namely that they exposed dental care for patients with ASD and mild and/or moderate sedation.

RESULTS

ASD is a modification of the neurological condition with premature onset, characterized by impairment of social skills and language. Patients with this condition represent a great challenge for dentists due to their complex and diversified clinical manifestations. People with special needs, especially those with brain and behavioural deficiency, are compromised in relation to their oral health. With alterations such as caries and periodontal diseases being prevalent, proven by studies covering patients with autism. When dealing with the adversities in the care of people with ASD, there is inflexibility to the routine and the environment. That with the office being an adverse place, which can result in anxiety and agitation for the patient. More obvious for

thus not having previous cooperation for dental care. Conscious sedation, whether medicated or inhaled with nitrous oxide, becomes interesting option in this context. This is promoting adequate care, being a safe and reversible alternative favoring outpatient care, minimizing the use of general anaesthesia and hospitalization. All included studies reported the approach to dental care for autistic patients and 66% exposed the use of some type of sedation.

CONCLUSIONS

It was evidenced that in the care of patients with ASD, sedation is favourable, since it has analgesic and sedative properties. Calming the patient quickly and safely, reducing their sensitivity to pain and fear, enabling atraumatic care.

00100134

Discrepancies between the pharmaceutical information provided by the dental patient and their electronic medical record

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AIM(S)

To analyse the discrepancies between the consumption of drugs as described by patients in their dental record and the actual consumption recorded in their electronic medical record.

METHODS

We consecutively selected 100 patients who sought dental care at the Faculty of Medicine and Dentistry of Santiago de Compostela University (Spain). We applied the following inclusion criteria: older than 18 years, no intellectual disability and enrolled in the public health system. In the context of dental history, all participants completed a survey on the medication they regularly consumed, the dosages they used and the administration regimen they followed. Their electronic medical record was then accessed, and information was collected on the active medication, comparing the results to detect discrepancies.

RESULTS

Eighty percent of the patients consumed at least one drug, 19% took more than 5 drugs, 50% failed to report one of the drugs that appeared in their medical record and in 20 of these cases, the patients overlooked 3 or more drugs.

Moreover, 18 patients stated that they consumed at least 1 drug that was not listed in their medical record. The medication recorded in the dental history fully agreed with that in the medical record in only 46% of the patients. The most ignored drug groups in the dental history were gastroprotective agents, hypolipidemic agents, antihypertensives, analgesics/opioids (only 1 of every 4 patients declared them) and anxiolytics/hypnotics/sedatives.

CONCLUSIONS

A significant percentage of patients presented discrepancies between the declared drugs and their actual consumption. It is important to find formulas that help determine patients' active pharmacological history and thereby prevent the associated risks in the context of dental care.

00100135**Full mouth rehabilitation using zirconia crowns in an autistic child presented with pain: A case study****M. Boules, A. Abu Elnil, R. Ali Maher***Modern Science and Art University Faculty of Dentistry, Giza, Egypt***CASE DESCRIPTION**

In July 2021, a 7-year-old male patient with Autism, accompanied by his mother, presented with a complaint of discomfort. He was refusing to eat or drink or wash his teeth for almost two days. His mother reported no dark spots or caries in his teeth and could not figure out a reason behind his expressed discomfort. They were admitted to the "Special Care Center" in Hadaik El Ahram, Giza, Egypt.

CLINICAL IMPLICATIONS

Under clinical examination, severe erosion was noticed on the labial surfaces of almost all of his teeth. His medical history included gastroesophageal reflux disease (GERD).

In addition, radiographs showed a loss of tooth structure in all his maxillary teeth and in his mandibular molars. Thus, the pain was concluded to be a result of severe sensitivity.

Due to pulpal involvement, pulpectomy was done for all the maxillary anterior teeth and pulpotomy was done for the right and left first maxillary deciduous molars and the right and left mandibular first and second deciduous molars. They were finally covered by zirconia pedodontics crowns. The whole procedure was done under general anaesthesia. Follow-up appointments were done 2, 6, and 10 weeks after the day of the treatment. After the procedure, he was finally able to return back to his normal daily life routine; eating, drinking, and brushing.

CONCLUSIONS

Full mouth rehabilitation, through pulpal treatment and zirconia pedodontics crowns coverage, was able to relieve the pain of an autistic child. This expresses the significance of the existence of special care dentistry for proper and early diagnosis and optimal dental service.

00100136**A hard case to swallow****C. Hansen***Harrogate and District Foundation Trust Community Dental Service, Harrogate, United Kingdom***CASE DESCRIPTION**

A 66-year-old male patient with learning difficulties and limited communication, experiencing gagging and dysphagia attended A&E with his carers. His 11-year-old upper partial denture, which he regularly wore overnight, had gone missing. The denture was not visible on a chest xray or CT neck and thorax, and a general anaesthetic was planned for pharyngoscopy. On induction of anaesthesia and with videolaryngoscope, the denture, which replaced 5 teeth, was discovered in the hypopharynx at a level behind the base of the tongue. It was removed with Magills forceps and returned to the patient. The Special Care dental team was contacted by his carers after discharge for advice regarding the safety of denture wearing. A review of the literature suggests that this may be a more common complication of denture wearing than dental teams are aware of.

CLINICAL IMPLICATIONS

The examination and risk assessment undertaken included evaluation of the patient's communication and capacity, oral health, denture wearing ability, swallowing, ability to accept dental treatment, and consideration of safeguarding and the impact of being without a denture. With continued denture wearing further swallowing episodes could not be ruled out, however this was balanced against the patient's distress without his denture. A best interest decision was made to provide extraction of three unrestorable and periodontally involved teeth, one restoration, provision of more retentive partial dentures, and oral care plan.

CONCLUSIONS

Swallowed dentures can pose significant risk to patients and should be risk assessed not only when providing dentures, but at regular review. This case highlighted the importance of a holistic approach involving the patient, their care team and dental team, taking into account the patients individual circumstances balancing of the risks of denture wearing with of the psychological effects for the patient of not providing a denture.

00100137**New bright smile can be the secret behind the self confidence in an obese patient via digital models****M. Boules***Modern Science and Art University Faculty of Dentistry, Giza, Egypt***CASE DESCRIPTION**

In September 2021, a 57-year-old male patient came with spacing between the upper two central incisors, crowding in lower anterior teeth, and a yellowish unsatisfactory smile. He was admitted to the "Special Care Center", HDAIK EL AHRAM, Giza, Egypt. Under clinical examination, we found cracks in the enamel, yellowish discolouration in the upper anterior teeth, an old cantilever bridge, and crowding in the lower anterior. Radiographs showed caries in the anterior and posterior teeth.

CLINICAL IMPLICATIONS

Endodontic treatment for all lower anterior teeth was done because of the pulpal involvement. Using CAD-CAD software, a new smile was made. We used the Digital Smile Design Software (DSD©) to decide the shape and forms of the teeth. We used the intraoral scanner for taking the impression and the milling machines to get zirconium crowns.

Follow-up was done 1, 3, 6, and 10 days after the day of the treatment from the baseliner. A new smile with patient satisfaction was done.

CONCLUSIONS

Crowns fabrication to make a new smile was delivered to the patient. The author strongly believes that each special person with special needs deserves a special smile.

00100138

Parental perception regarding oral health and related quality of life of young Romanian Special Olympics athletes

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AIM(S)

To investigate parental perceptions on oral health and quality of life of young Romanian Special Olympics (SO) athletes.

METHODS

Parents/legal representatives of 118 Romanian SO athletes under 18 years of age participating in a National SO event (Deva, 2019) answered a printed questionnaire regarding their children's oral health and perceived impact on the quality of life (QoL). A cross-sectional study was conducted on the answers. Clinical examination of the athletes was subsequently performed under field conditions using a dental mirror and probe. Individual data were recorded and oral health parameters (caries prevalence index Ip, DMF-T and components, restoration index RI, Plaque index PI) were calculated.

RESULTS

Seventy-five percent (n=89) of the parents rated their children's oral health as good to excellent; 55% (n=65) felt that oral health status had little or no impact upon QoL; 66.1% (n=78) stated their children had never had oral pain; 64.4 (n=76) had never noticed gingival bleeding. Most parents (88.9%, n=105) had already taken their kids to the dentists for pain (20.8%, n=25), obvious

caries (24%, n=28) or regular check-ups (50%, n=59). Only 35.6% (n=42) of the children had benefited from community-based caries prevention programs (Special Smiles mostly mentioned).

Clinical examination of the athletes revealed: 9.4% (n=11) were caries-free; mean DMF-T was 7.80, with mean D component 4.88. Mean RI was 18.32%. PI was 1.49 and 66% (n=78) of the subjects had gingivitis.

CONCLUSIONS

Although it is commonly known that children with disabilities have higher risk of oral conditions (caries, periodontal disease, malocclusion), many parents are not aware of their child's actual oral status. Oral treatment needs are underestimated and remain unmet. Early information of family will help recognizing child's dental needs. O.S.C.A.R. platform can be a useful tool for increasing parent's knowledge and awareness, as well as for encouraging efficient communication with the dental team.

00100139

Evaluating the oral disease burden of cardiology patients diagnosed with infective endocarditis or those awaiting cardiac valve surgery referred to Special Care Dentistry

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AIM(S)

Prior to invasive heart surgery, guidelines recommend that all patients receive a thorough oral examination and any urgent dental treatment to reduce the risk of post-operative complications. In patients diagnosed with infective endocarditis, there has often been a dental cause identified. In this analysis, we aim to evaluate the oral disease burden of patients referred from the Cardiology Team to the Special Care Dental Team.

METHODS

A detailed database was implemented at Birmingham Community Healthcare Trust for patients referred to the Special Care Dental Team. Data from July 2021- February 2022 was analysed to determine oral disease burden and dental management needs. Demographic data including age range, gender and referring hospital was included. Data collected regarding their dental status (presence of caries, periapical pathology, bone loss, Decayed-Missing-Filled Teeth (DMFT) score) was based on the findings from their orthopantomogram- received with or requested upon referral.

RESULTS

Over the 6-month period of analysis, information was available for 20 patients who had been referred. 1 patient was excluded from analysis due to incomplete information and no orthopantomogram available. The modal age range

was 65+ (37%, 7/19) and 58% (11/19) were male. Caries was identified 58% (11/19) of patients affecting between 1-7 teeth. Periodontal disease was identified in 79% (15/19) of patients with percentage bone loss ranging between 10- 90%. The mean DMFT score was 16. Infective endocarditis was identified in 37% (7/19) of patients with oral bacteraemia cultured in 2 cases (29%, 2/7).

CONCLUSIONS

A greater oral disease burden was identified in this patient cohort requiring cardiac surgery or diagnosed with infective endocarditis than the general adult population of a similar age in England based on the Adult Dental Health Survey (2009). This project has supported the development of an evidence-based referral pathway for the dental management of this cohort of patients.

00100140

Tourette's syndrome and its recurring implications for oral health

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AIM(S)

The study aims to establish the main challenges encountered by dentists in relation to patients with Tourette's Syndrome and oral alterations caused by their habits.

METHODS

The present study was carried out by a bibliographic bias with search in the SciELO and PubMed database in the period from 2018 to 2022.

RESULTS

Tourette's syndrome (TS) or Gilles de la Tourette's syndrome is a neuropsychiatric disorder characterized by the appearance of involuntary, repetitive, compulsive and spontaneous tics or movements, which may result from stressful situations. As a result, in the dental area, people with TS commonly grind their teeth, occlude dental loads too hard, gnaw nails and bite lips and cheeks in order to relieve stress. These habits, in turn, usually cause oral pathologies, as well as non-carious cervical lesions, temporomandibular dysfunctions and occlusal traumas. In addition, professionals should establish a correct management in patients with TS, as the tics themselves can be a hindrance during dental procedures, since the use of rotational instruments or sharp puncture tend to cause undesirable self-mutilation.

CONCLUSIONS

Regarding the findings, patients with special needs present obstacles in the preservation of their oral health due to the habits of their comorbidity, requiring the professional to know how to establish a correct management and work multidisciplinary with other health professionals.

00100141

Dental conduct in diabetic patients: Risks and treatments from the oral manifestations

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AIM(S)

This study carried out a systematic review on diabetes, correlating the dental conduct aiming at the care of this disease and the alterations present in the oral cavity.

METHODS

We previously selected articles associated with the theme in scientific databases such as Scielo and LILLACS, published between 2012-2020. The selection criteria used were articles with the concept of diabetes, diabetes interference in oral health and the importance of the dental surgeon's knowledge about the theme.

RESULTS

Diabetes Mellitus (DM) represents one of the most important public health problems. It is a systemic disease that encompasses a group of metabolic disorders, resulting from a failure in insulin secretion and/or activity. During the dental care, a careful anamnesis is indispensable for the decision of the therapeutic conducts and the correct performance of the procedures. Special attention is recommended to the types and dosage of medications used by the patient, as well as the choice of local anaesthetics. Physiological alterations are found in patients with diabetes and many of these are in the oral cavity, an example being periodontal disease that negatively affects the salivary flow. Another common aspect among people with uncontrolled

diabetes is susceptibility to dental caries due to the higher concentration of salivary glucose, increased acidity of the oral environment, viscosity, and enamel hypocalcification. Moreover, the absence of metabolic control may be related to the presence of fungal infections, such as oral candidiasis, another relevant finding. Dental care for diabetic patients should be adapted according to their particularities, taking into account the time and schedule of clinical procedures.

CONCLUSIONS

Appropriate clinical conduct should be adopted to the peculiar conditions of diabetic patients during the dental appointment in communication with the attending physician, promoting well-being and better health conditions to them.

00100142

Dysplasia oculus-auricule-vertebral syndrome of Goldenhar - clinical case report

**G.S. Melo, T.G.S. Araújo, J.V.N. Oliveira, J.P.D. Chagas,
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CASE DESCRIPTION

A 5-year-old male patient, with maxillary and jaw malformation and no relevant family history. Regarding the pregnancy, there was an intercurrentence during which the mother had severe haemorrhage at the period of 7 months (30 weeks), being taken out to term. There were no complications during childbirth, but, the child was born with facial asymmetry, facial paralysis (R), hypoplastic agenesis of the auricular pavilion (R) and middle ear, hemi mandibular hypoplasia more accentuated in branch and mandibular condyle associated with shallow fossa, glossoptosis, congenital glaucoma, single kidney (L), CIA type ostium secundum, gastroesophageal reflux disease and insomnia. In his first years he began to exhibit frequent seizures and difficulty in urination due to the obstruction of the urethral canal. The patient was diagnosed by about 11 medical professionals and based on the phenotype was diagnosed with oculus-auriculo-vertebral spectrum (Goldenhar syndrome).

CLINICAL IMPLICATIONS

The following alterations were observed: difficulty in lip sealing, many teeth destroyed by carious processes, asymmetric eyes, micrognathia, mouth breathing, speech and hearing difficulties. In the first instance, the treatment of the carious condition will be carried out and subsequently referred for surgical and orthodontic evaluation.

CONCLUSIONS

The case reported and brought to light the discussion of the main defects found in this set of malformations mainly derived from the morphogenesis errors of the first and second pharyngeal arch. The hypoplasia of the maxilla and/or jaw, affecting the condyle and branch, with consequences on the temporomandibular joint, malformations of the inner ear accompanied by deafness and manifestations in the eyes, are characteristic. Therefore, the patient should receive a general treatment, which has support, assistance and multidisciplinary follow-up, for a better treatment result.

00100143**Impacts of moebius syndrome on orofacial health:
A current overview****J.V.N. Oliveira, J.P. Chagas, G.S. Melo, C.H.D. Santos Júnior,
T.G.S. Araújo, B.K.D. Moura, M.F. Teixeira, J.M. Santos Júnior***Faculdade Evangélica De Goianésia, Ceres, Brazil***AIM(S)**

The study is a literature review focused on the impacts of moebius syndrome on orofacial health, focusing on the main oral abnormalities and the therapeutic conduct of the dentist about the patients, since this condition causes a deficient oral hygiene due to variations caused by facial nerve and abducent paralysis, limiting that the patient has a correct movement of the muscles of the face and eyes, thus hindered the realization of facial expressions.

METHODS

This is a scientific search, focused on the analysis of articles available in the databases of ScieELO, Lilacs and PubMed, in the periods 2018 to 2022.

RESULTS

Moebius syndrome (MS) consists of a rare, non-progressive and congenital anomaly caused by paralysis of the abducent and facial nerves. Its etiology remains unclear; however, some theories are related to possible genetic mutations in the embryonic period. The most cited and accepted hypothesis is that generated through ischemia/hypoxia of nerve cells present in the fetus, consequent to the stop of blood flow during the first three months of pregnancy. There are several findings in oral manifestations in patients with MS, such as anomalies in the tongue, dental agenesis, dental hypoplasia, open bite, phonetic difficulty, swallowing and performing excessive movements of the jaws, among others. The presence of early care of the dentist since the

oral alterations is of paramount importance, so that they are treated from a prior and comprehensive planning, offering a favorable prognosis and an improvement in quality of life.

CONCLUSIONS

In view of the facts obtained, we can perceive the dental surgeon's due insertion due to the fact of recurrent orofacial alterations in these patients. Its cause is not yet defined, therefore, the earlier its diagnosis and the beginning of its treatment, the greater the chance of promoting improvement in physical, mental, and social health.

00100144

Case report of scleroderma in Saudi Arabia and follow up

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CASE DESCRIPTION

A 5-year-old Saudi girl presented to the dental clinic of a specialized medical centre referred from with a diagnosis of scleroderma. She was on chemotherapy monthly (Methotrexate) complaining of multiple dental problems. Patient was referred back to the paediatric dermatologist for evaluation, clearance and admission under their care for dental rehabilitation under general anaesthesia.

CLINICAL IMPLICATIONS

Schedule short exam and care appointments for one area at a time or one tooth at a time • Do your physical therapy right before • Wear gloves and bring a blanket in case the office is cold • Carry a list of prescription and over the counter medications, purpose, dosage, and prescribers and prescribers' contact information • Mouth prop. • Rubber dam. • Patience of both parties. • Short appointments and/or breaks. • Be creative.

CONCLUSIONS

People living with scleroderma face unique challenges while trying to maintain their oral health. They are more likely to be affected by dental conditions such as small mouth, dry mouth, jaw pain, gum disease, and dietary issues.

00100145

Analysis of the oral microbiome in a patient with severe periodontitis and cardiofaciocutaneous syndrome: Impact of systemic antibiotic therapy

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CASE DESCRIPTION

An 8-year-old girl diagnosed with cardiofaciocutaneous syndrome (mutation in heterozygosity in the MAP2K1 gene) was brought for consultation due to pain, inflammation and spontaneous gingival bleeding. Her medical history included hypoplasia of the corpus callosum, intellectual disability, trichothiodystrophy, global developmental delay, myopia, laryngomalacia, hypothyroidism and osteoporosis. A diagnosis had been reached of "periodontal disease as the direct manifestation of systemic disease". During 9 years of follow-up, maintenance sessions were performed every 3 months, and scaling and root planing procedures were performed on 5 occasions. However, these did not prevent the onset of exacerbation episodes with spontaneous bleeding, ulcers in the interdental papilla, tooth mobility and progressive tooth loss. Some of these exacerbation episodes resolved clinically with the administration of amoxicillin (500 mg/8 h) and metronidazole (250 mg/8 h). We therefore proposed an oral microbiome study (subgingival and saliva samples) before and after antibiotic therapy. The most abundant genera at the subgingival level before administering antibiotics were *Prevotella* (10.1%), *Streptococcus* (6.3%), *Fusobacterium* (6.2%), *Leptotrichia* (10.7%) and *Aggregatibacter* (7.8%). Of the 94 genera sequenced, 57 were less abundant in the post-treatment state than at baseline, particularly certain gram-negative periodontal pathogens such as *Porphyromonas*, *Treponema*, *Aggregatibacter*,

Fusobacterium and Campylobacter. In contrast, other genera related to oral health showed an increase after administering the antibiotic, such as Haemophilus, Granulicatella and Abiotrophia.

CLINICAL IMPLICATIONS

Periodontal disease exacerbations as the direct manifestation of systemic disease, despite presenting full-blown symptoms, can occasionally be controlled exclusively with oral antiseptics and systemic antibiotics, without the need for performing curettage.

CONCLUSIONS

The systemic administration of antibiotics to patients with periodontitis associated with systemic disease causes substantial changes in the oral microbiome, which lead to the recovery of eubiosis of the microbiota.

00100146

Conscious sedation: A therapeutic approach to patients with down syndrome

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Curso De Odontologia Da Faculdade Evangélica De Goianésia (faceg), Goianésia, Brazil

AIM(S)

This study presents a review of the scientific literature about the clinical conduct of the dental surgeon regarding the treatment of patients with Down Syndrome (DS) emphasizing the use of conscious sedation as a pharmacological therapy as an adjunct in the feasibility of the professional's work.

METHODS

This is a literature review of complete articles in the databases of PubMed, SciELO and Lilacs, in the periods from 2018 to 2022.

RESULTS

DS is a congenital condition in which, due to inadequate neural development, it is possible to observe a cognitive deficit that is able to implicate in the health care and oral hygiene. Thus, these patients have a high risk of developing periodontal diseases and caries, and it is up to the dentist to analyse the best treatment. In view of the above, the use of conscious sedation consists of a pharmacological management used by the professional, in order to perform a quiet care to these patients, since psychoactive techniques do not always serve to manage it. Inhaled administration is the most used, consisting of the mixture of nitrous oxide (N₂O) oxygen-adjunct (O₂) gases, being classified as a fast and safe action, in which promotes the control of anxiety and fear of these patients. It is noteworthy that, regardless of the management alternative, a multidisciplinary conduct is necessary between the dental surgeon, physicians and psychologists.

CONCLUSIONS

However, it is clear the need for an adequate dentist action in order to condition patients to the treatment, pointing out the need for the use of pharmacological techniques for the professional to perform their skills efficiently, improving the quality of life of these individuals, in addition to integrating them into the environment in a prudent way.

00100147

Intentional dental replantation for horizontal fractured tooth: A clinical report

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CASE DESCRIPTION

A 7-year-old boy diagnosed with Millaer-Diekes syndrome was brought for consultation due to a dental traumatism and severe mobility of the upper anterior incisors. His medical history included subclinical hypothyroidism, weight stagnation (14 kilograms weigh, PEG tube carrier), psychomotor development delay, microcephaly and non-well controlled epileptic seizures. After clinical and radiographic examination, diagnosis was done of horizontal root fracture at the apical third of tooth 1.1. Due to the behaviour difficulties, the systemic diagnosis, and the complexity of the treatment needed, general anaesthesia was indicated. The patient passed the anaesthesia consultation classified as ASA III. Treatment was done 3 days after dental trauma: intentional extraction of the coronal portion and endodontic treatment (Biodentine™) and replanted. While the endodontic treatment was done, the apical portion of the root was extracted thought the alveolus. After all, the tooth was provisionally maintained with a semi-flexible splint fixed to the adjacent teeth until stabilization is achieved. During the first follow-up visit, it was observed that the patient took off the splint by manipulation and these was fixed and reinforced. Due to local risk factors (manipulation, class II malocclusion, and others.), the splinting time was extended.

CLINICAL IMPLICATIONS

Severe or uncontrolled systemic conditions may suggest treating patients under general anaesthesia. In these cases, is essential try to perform the treatment in a single session and to do as much as possible (i.e. the use of ceramic biomaterials) to increase the prognosis and prevent failures to avoid a second intervention. Family and caregivers should know the risk factors to prevent new dental trauma.

CONCLUSIONS

The protocols of management of dental trauma should be evaluated carefully in special care dentistry, especially for treatments under general anaesthesia. In addition to “dental factors”, systemic and environmental factors must be included in the discussed in pursuit of the best interest of the patient.

00100148**Oral health status assessment of frail older adults residing in long-term care facilities in Vancouver, Canada****J. Yoon¹, N. Tong², C. Wyatt³**

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AIM(S)

The purpose of this study was to investigate the oral health status of frail older adults residing in 7 long-term care (LTC) facilities located in Vancouver, Canada for 5 years from 2015 to 2019 using the CODE (Clinical Oral Disorder in Elders) database of the University of British Columbia (UBC) Geriatric dental program (GDP).

METHODS

This study utilized a CODE database that had been developed and used for the LTC facility since 2002. Total of 2,160 frail older adults who had a record of the first mandatory oral examination within a month after admission over the years 2015-2019 were included. Patients' oral health status was assessed by age, gender, medical history & medication, number of remaining teeth, number of functional occlusal units, denture status, inadequate occlusal contact, tooth structure and gingival health & periodontium. Descriptive statistics were presented for the assessment of oral health status.

RESULTS

Mean age of all subjects was 86.1 (female 61.4%; male 38.6%). They had mean number of 16.3 remaining teeth and of 16.9 functional occlusal units. Among the subjects, 28.6% had inadequate occlusal contacts, which means a subject does not have less than two contacts of premolars including prosthetic teeth bilaterally. Only 745 subjects (34.5%) had the ability to maintain their own oral hygiene, and 1192 subjects (55.2%) were able to maintain their own oral hygiene with assistance, but 223 subjects (10.3%) were unable to maintain their own oral hygiene. Total of 280 subjects (13.0%) was complete edentulous patients, most of them had their complete dentures (212 subjects, 75.7%). There were 1174 subjects (54.4%) with a history or a diagnosis of dementia.

CONCLUSIONS

The oral health status of frail older adults residing in seven long-term care facilities associated with the UBC GDP is vulnerable and further efforts to improve oral hygiene are needed.

00100149**Axenfeld-Rieger syndrome: A case report on dental and craniofacial findings****J.H. Kim, C.M. Kang***Department of Paediatric Dentistry, Yonsei University of Dental Hospital, Seoul, Republic of Korea***CASE DESCRIPTION**

A 5-year-old boy visited our clinic (department of the paediatric dentistry, Yonsei University Dental Hospital) with a chief complaint of evaluation and treatment of multiple congenital missing of primary and permanent teeth. The patient was diagnosed with Axenfeld-Rieger anomaly due to mutation of PITX2 gene, and presented typical dental, ocular features of Axenfeld-Rieger syndrome, such as iris hypoplasia and missing teeth. On panoramic view, 2 primary teeth (both maxillary primary lateral incisors) and 21 permanent teeth (both maxillary 2nd molars, 2nd premolars, canines, lateral incisors, central incisors, both mandibular 2nd premolars, 1st premolars, canines, lateral incisors, central incisors and mandibular left 2nd molar) were congenital missing. On intra-oral examination, anterior crossbite were found. Myofunctional appliance for crossbite correction and periodic follow-up for missing teeth was planned. Later, removable space maintainer or flexible denture can be considered for treatment of permanent teeth missing when he becomes mixed dentition.

CLINICAL IMPLICATIONS

Axenfeld-Rieger syndrome is a rare autosomal dominant disorder by various gene mutation such as 4q, 13q, 6p. The incidence of this syndrome has been estimated to be 1 per 200,000. The syndrome is characterized by deformity of anterior chamber of the eye and missing of teeth. The dental anomaly includes oligodontia, peg-shaped tooth, taurodontia, delayed development of tooth, midface depression, short root. This report discusses oral manifestations of Axenfeld-Rieger syndrome and its dental management methods.

CONCLUSIONS

As Axenfeld-Rieger syndrome patients are characterized by ocular and dental symptoms, clinicians can prevent exacerbation of other systemic complications by early diagnosis of Axenfeld-Rieger syndrome through dental symptoms.

00100150**Service evaluation of a community dental service urgent dental hub during the COVID-19 pandemic****D. Rosenthal, L. Rahman, M. Callow, H. Hossenally***Whittington Health NHS Trust, United Kingdom***AIM(S)**

This service evaluation aims to explore the volume and types of treatment that were delivered by Whittington Community Dental Service (CDS) during the first peak of the pandemic and learn more about the demographics of the patients attending the service.

METHODS

Anonymised patient data from three urgent dental hubs was uploaded to a spreadsheet from May 2020 across three urgent dental hub sites. Data was collected about patients' age, gender, postcode, medical history, treatment and outcome. From this data, paediatric patients' records assessing the recording of complaint, medical history, examination, diagnosis, treatment, ethnicity and detail of who attended with the patient.

RESULTS

406 patients were seen across 3 dental hubs. 52% of these were male. The furthest travelled distance to the hub was 66.4 miles. 100% of attending patients were triaged prior to their appointments. 63% of patients were ASA1, 28% were ASA 2 and 9% were ASA 3. 19% of those attending were patients who would ordinarily access or be eligible for access to CDS Care; where reasons included learning and physical disabilities, complex medical histories, Dementia, Parkinsons, severe anxiety, hearing impairment, mental health conditions and pre-co-operative children. Additionally, 3 domiciliary visits were carried out by staff within the urgent hubs for those unable to access the

hubs directly. 90% of cases were considered urgent, 8% were considered routine and 2% were considered emergencies.

CONCLUSIONS

This service evaluation demonstrates excellence in provision of care across London by Whittington CDS, in particular by enabling patients requiring CDS care to retain access to urgent dental treatment throughout the pandemic.

00100151**Potential benefits of CAD/CAM techniques in special care dentistry****S. Bonvallet, A. Gonzalez***Valparaiso San Antonio Health Service, University of Valparaiso, Viña Del Mar, Chile***AIM(S)**

To analyse existing data on computer-aided design/computer-aided manufacturing (CAD/CAM) in dentistry and possible applications and benefits for special care patients.

METHODS

Literature research was performed on Pubmed with the terms "CAD/CAM" AND "special needs" (11 results); "computer-aided design" AND "special needs" (8 results); "CAD/CAM" AND "disability" (88 results); "computer-aided design" AND "disability" (95 results); "CAD/CAM" AND "special care" (25 results); "computer-aided design" AND "special care" (23 results). Abstracts were reviewed to remove duplicates and relevance to the topic was assessed. 7 articles were included.

RESULTS

All articles consisted of case reports. CAD/CAM technologies were used in both adult and paediatric populations and in several applications such as: orthodontic appliances, implants, dental trauma, adhesive bridges, dentures and implant-retained overdentures. Approaches used also included digital smile design and digital implant planning with cone beam computed tomography. Populations treated included: patients with Epidermolysis Bullosa (EB), dentinogenesis imperfecta, autistic spectrum disorder, dementia, learning and psychomotor disability and older adults. Benefits reported included: less need for compliance, fewer visits, reduction in damage to surrounding

tissues, less gag reflex, possibility of printing models and surgical guides, less retreatments and good follow-up outcomes. Potential to improve teeth prognosis and reduce invasive general anaesthesia (GA) treatments were also reported. Costs analysis stated similar cost to conventional treatments due to reduction or avoidance of sedation or GA sessions. Aesthetics was one of the most highlighted features of digital treatments.

CONCLUSIONS

Information on this topic is scarce and more publications are needed. CAD/CAM technologies have many applications and benefits which can positively impact the quality of treatments and long-term prognosis for these patients. Digital dentistry should be developed considering people with special care needs to improve their quality of life and give them a chance for predictable aesthetic solutions.

00100152**Dental education at the university level: A care analysis for patients with special needs****M.F. Teixeira, A.G. Vieira, G.P. Braga, G.S. Melo, C.H. Santos Júnior, T.G.S. Araújo, B.K.D. Moura, J.M. Santos Júnior***Dentistry Course of Faculdade Evangélica De Goianésia (faceg), Goianésia-Go, Brazil***AIM(S)**

To analyse dental education in a university environment focused on the care of patients with special needs, considering that these subjects require dental special care because they have limitations, whether temporary or permanent, of a mental, physical, sensory and emotional nature, which prevent them to undergo conventional care.

METHODS

This is a bibliographic survey about the teaching of the Special patients subject in the Faculties of Dentistry in Brazil. For this, we used the articles and research available in the ScieELO, Lilacs and PubMed databases, from 2018 to 2022.

RESULTS

Individuals with special needs constitute a heterogeneous population, who present partial or complete dependence and whose vulnerability tends to make them susceptible to oral disorders and comorbidities that can compromise their quality of life. Thus, these patients need special adaptations to the practices of daily life, directing them to a professional preparation and qualification that will be essential for dental care. In view of the above, it was found that the special patients subject is generally not in undergraduate courses and when the subject is present, there is a variable workload, sometimes insufficient, and there is an offer of complementary training in parallel courses. They require greater attention on the part of the adequate

form of management of these individuals and there are few professionals trained to supply these dental needs.

CONCLUSIONS

It was concluded that dental care for special patients requires the contribution of specific knowledge and that there is no regularity and guarantee of these being acquired at graduation, most of the time it is elective or non-existent in the period of dental graduation. There is a need for inclusion through an academic reorganization, such as the adequate structuring of the curriculum, aiming to address the deficiency and normalize care for these patients in view of the existing reality and need.

00100153**Primary care dentists' opinion on education, confidence and importance of special care dentistry****S. Bonvallet¹, J. Mansilla², I. Arancibia², J. Araya², D. Astudillo², F. Bezanilla²**¹Valparaiso San Antonio Health Service²University of Valparaiso, Valparaiso, Chile**AIM(S)**

To identify whether training as undergraduate students or general dentists and their assessment of their level can impact on confidence of dentists when treating special care dentistry (SCD) patients. To assess the interest of dentists in complementing their knowledge on this topic and their opinion on the relevance of including SCD in the undergraduate curriculum.

METHODS

Cross-sectional descriptive study. Sample calculation was done using a convenience sampling method with finite population proportion estimate. A Google Forms validated survey was applied to 149 primary health care dentists of the Valparaiso region, Chile. Likert scale (LS) from 1 to 7 was used to grade their level of confidence and to self-assess their training in SCD. Spearman independence test and Chi-square test were used to assess statistically relevant relationships between variables.

RESULTS

Mean confidence in treating SCD patients was 4.9 (on LS). 69.8% (104) had had theoretical or clinical experience in SCD during undergraduate training, with a rating of 4.1 (on LS). No statistically significant association was found between type of undergraduate training and confidence in treating patients ($p > 0.05$),

but a significant association was established between confidence and their rating of undergraduate training ($p < 0.05$) (Spearman independence test). The interviewees considered incorporating SCD into the undergraduate curriculum as a priority (mean: 6.7 on LS). On postgraduation training, 71.1% (105) had had some training in SCD and 92.6% (138) reported interest to deepen it. A statistically significant relationship was evidenced by the Chi-square test between confidence in treating these patients and their postgraduate training level ($p < 0.05$).

CONCLUSIONS

Most primary care dentists treat special needs patients regularly. Therefore, including training in the undergraduate curriculum and afterwards becomes necessary to increase their confidence and tackle barriers towards oral health for this population.

00100154**Oral characteristics and dietary habits of children born at preterm: A nationwide retrospective cohort study using an early childhood health screening database****S.Y. Park, J.H. Jung, L. Herr, J.H. Han, J.E. Shin, H.I. Jung, C.M. Kang***Department of Paediatric Dentistry, Yonsei University College of Dentistry, Seoul, Republic of Korea***AIM(S)**

Every year, approximately 15 million babies are born preterm (a live birth before 37 weeks of pregnancy), and this number is rising worldwide. The purpose of this study is to identify effects of prematurity on dietary habits as well as oral structures and dental care utilization.

METHODS

We retrospectively analysed data from the National Health Insurance Service-infant medical checkup cohort database of Republic of Korea. We included all paediatric patients born in 2008 and 2009 and classified them into two groups according to their birth history of preterm. The primary outcome was the prevalence of dental treatment. Secondary outcomes included breast feeding, night bottle feeding, the pattern of swallowing food, malocclusion, and oral hygiene.

RESULTS

84,005 had early childhood health screening examinations and excluding missing value for data processing, data from 66,373 were evaluated and 3.58% (n = 2,374) were preterm infants. Nighttime bottle feeding showed similar prevalence for 4-6 months full-term and preterm infants but preterm infants were significantly prone to using bottle at night time until 18-24 months old

($p < 0.001$). Preterm babies manifested higher probability of malocclusion in all stages of oral medical check-up. The rate of dental treatments such as extraction, pulp treatment, or restoration were lower in preterm infants than full-term infants.

CONCLUSIONS

Children born preterm have experienced more developmental defect and undesirable eating habits, while visiting and treatment rates were lower compared to children born normal. These findings may imply an increased vulnerability for poor oral health later in life. Continued public interest as well as the policy consideration by the government are needed. It is the first nationwide retrospective cohort study in identifying the oral characteristics of children born preterm and low birthweight compared to normal birth.

00100155

The importance of pharmacology in dentistry in patients with sjögren's syndrome

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AIM(S)

The present study aims to review in the scientific literature the clinical conduct of the dentist with regard to the use of drugs for the dental treatment of patients with Sjögren's Syndrome.

METHODS

This is a literary review of full text articles in PubMed, Scielo and Lilacs databases from 2018 to 2022.

RESULTS

Sjögren Syndrome is a chronic autoimmune disease that primarily involves the salivary and lacrimal glands, resulting in xerostomia (dry mouth) and xerophthalmia (dry eye). Xerostomia is observed in the oral cavity, as well as difficulties during swallowing due to taste changes or when using removable dentures. Scientific analysis identified that ulcers caused by the use of prostheses and angular cheilitis are common, leading to the use of medications. The lack of salivary cleaning action predisposes the patient to caries, especially cervical. Thus, pharmacology should be used as a way for the dental surgeon to correctly medicate the patient in the dental treatment associated with Sjögren Syndrome.

CONCLUSIONS

The main dental treatment for patients with Sjögren's Syndrome is supportive, and can be used: artificial saliva, sugar-free candies or gum to help maintain oral lubrication, as well as oral hygiene products containing lactoperoxidase, lysozyme and lactoferrin, as well as sialogogue drugs, such as pilocarpine and cevimeline, which may be useful in stimulating salivary flow if viable glandular tissue is present. However, the need for an adequate performance of the dental surgeon in order to condition the patients to the treatment is evident, pointing out the need to use pharmacological techniques so that the professional performs his skills efficiently, improving the quality of life of these individuals, in addition to integrating them into the environment in a prudent manner.

00100156**Occlusal splints improve tic symptom and quality of life in 2 cases with Tourette syndrome****J. Murakami, Y. Nakajima, M. Hirota, A. Ichikawa, S. Akiyama***Special Care Dentistry, Osaka University Dental Hospital, Suita-Osaka, Japan***CASE DESCRIPTION**

Patient1: 17 years of age at first visit, male, Tourette syndrome. Motor and phonic tics emerged at age of eight. A paediatrician has been medicating Haloperidol since the onset of tics, and he received the cognitive-behavioural intervention, but tic symptoms and difficulties in daily living have continued to date. After wearing a 2 mm thick molar splint, tic scores by tic symptom self-report (TSSR) and quality of life (QOL) score by SF-12v2 were improved.

Patient2: 17 years of age at the first visit, female, Tourette syndrome. Motor and phonic tics emerged at age of five. She had received medication, Chinese medicine therapy, acupuncture, and nutrition therapy since the onset of tics, but difficulties in daily living have continued to date. After wearing an occlusal splint, both tic and QOL scores were improved.

CLINICAL IMPLICATIONS

Tourette syndrome is defined as an inherited neurological disorder that is a chronic idiopathic syndrome characterized by the presence of multiple motor tics and vocal tics that have their beginning before adulthood. The use of an occlusal splint is an emerging and novel treatment modality for reducing tic severity. This treatment evolved out of observations from the dental community that dental orthotics reduce tics anecdotally. Recent studies indicated that these therapeutic effects of biting may be caused by the neuronal modulation of the thalamocortical pathway. We have reported a reduction of tic symptoms after wearing an occlusal splint in 22 patients with Tourette syndrome. From the experience of two Tourette's syndrome patients, occlusal splints may also improve Tourette's syndrome quality of life.

CONCLUSIONS

Occlusal splints may improve quality of life as well as tic symptoms in 2 cases of Tourette syndrome.

00100157**Differences in the timing of acquisition of feeding function due to differences in birth weight****M. Kusano, A. Shindo, T. Ooka***Meikai University School of Dentistry, Sakado, Japan***AIM(S)**

Previous studies have shown that low birth weight (LBW) infants experience delays in feeding and other nutritional support, as well as in their overall growth and development. The purpose of this study was to understand the differences in the timing of the acquisition of feeding function between LBW and normal birth weight (NBW) infants, and to determine when aggressive intervention is desirable.

METHODS

The subjects were 50 LBW children and 21 NBW children, aged 0-6 years, whose feeding status was observed multiple times at an outpatient feeding clinic of a certain hospital. The time taken by the subject children to acquire each feeding function was calculated at their actual age. We then determined the difference in the timing of the acquisition of feeding function between LBW and NBW children and considered at what point in the development of feeding function active intervention should be implemented.

RESULTS

In terms of the development of eating functions, the period of acquisition of swallowing was the most delayed, followed by the period of acquisition of food-taking, the period of acquisition of eating utensils, the period of acquisition of mashing, the period of acquisition of chewing and the period of preparation for oral intake. In terms of motor development, turning over and grasping were delayed in that order.

CONCLUSIONS

The results of this study suggest that differences in the timing of acquisition of swallowing function are most likely to occur during the period of acquisition of swallowing function, and that these differences tend to narrow toward the period of acquisition of chewing function. This suggests that it is desirable to provide active intervention during the period from the oral intake preparation phase to the swallowing function acquisition phase.

00100158**Proper dental treatment for lung cancer patients****W.I. Choi, K.D. Kim, W. Park, N.S. Pang, S.J. Yang, J.E. Cheong***Advanced General Dentistry, College of Dentistry, Yonsei University, Seoul, Republic of Korea***AIM(S)**

In Korea, lung cancer is the third most common cancer, and it is known that lung cancer is the most common cancer type in the 65-year-old or older group. However, analysis of lung cancer patients who are planning on operation or under chemotherapy or radiotherapy is lacking and their protocol of dental treatment has not been established yet. In this study we aim to establish proper dental treatment protocol for lung cancer patients by analysing lung cancer patients who have visited department of Advanced General Dentistry, College of Dentistry, Yonsei University and analysing the dental treatment they have received during their visit.

METHODS

Lung cancer patients with the cancer type of adenocarcinoma, squamous cell carcinoma and small cell cancer who visited our department between March, 2021 to February, 2022 were analysed. Patients' status of cancer, types of dental treatment were collected according to their electronic medical chart.

RESULTS

Adenocarcinoma was the most common type of lung Cancer followed by squamous cell carcinoma, small cell cancer. 10.8% patients died within 1 year from their diagnosis of lung cancer. Mouthguard; appliance made to prevent crown fracture or tooth avulsion during lung transplantation or tumour removal surgery which is processed under general anaesthesia; was the most common types of dental treatment followed by extraction, periodontic treatment.

CONCLUSIONS

A dental treatment plan needs to be established or modified based on an understanding of the characteristics of lung cancer patients, including life expectancy, and the medical diagnostic and treatment protocol they will receive.

00100160**Fibrodysplasia Ossificans Progressiva (FOP)
Canadian Patient's perceptions on their dental care****C. Friedman¹, S.C. Pani²**¹*Paediatric Oral Health Dentistry, London, Canada*²*Schulich School of Medicine and Dentistry, Western University, London, Canada***AIM(S)**

Fibrodysplasia Ossificans Progressiva (FOP) is a rare genetic disease that results in the severe bone and muscle problems. The facial manifestations of this disease include the inability to open the mouth, making the prevention of dental disease and the treatment of dental problems difficult. However, there are few dental providers in Canada with the necessary expertise to provide dental care to individuals with FOP. The aim of this study was to survey the perceptions of Canadians with FOP on their access to dental care.

METHODS

A survey was sent out through the Canadian FOP network to all its 17 members, regarding their access to dental care. The survey consisted of questions that sought to examine both the type of dental care access they had and sections for the participants to list out their concerns and challenges with dental care.

RESULTS

There are 17 persons with FOP on the Canadian FOP network, 7 of whom completed this survey. The respondents were aged between 13 and 34 years. While 4 participants received care in private settings 3 of them received care in a public hospital setting. All the participants had received dental care at least once in the past three years and 6 of the 7 had seen a dentist in the last year. Only 1 of the 7 described the health of their teeth as poor and had

experienced a toothache in the past year. Overall, the sample had experienced good dental care and were satisfied with the state of their dental care.

CONCLUSIONS

The creation of patient network and trained dentists can go a long way in effectively addressing the routine dental needs of persons with FOP outside a hospital setting.

00100161

Treatments of traumatic dental injuries in patients with mental disability

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CASE DESCRIPTION

First patient: 18-year-old male patient with non-verbal autism was referred to the Louis Mourier dental department 7 days after reimplantation of 3 avulsed incisors under general anaesthesia. Due to a total lack of cooperation, the endodontic procedures in 2 steps with calcium hydroxide interappointment required two general anaesthesia operations. The regular clinical follow-up ensures the absence of complications one year after the traumatism.

Second patient: 17-year-old female patient with genetic disorder, associated with multiple disabilities and no verbal communication was referred as an emergency for the treatment of a crown fracture of 21 and a subluxation of 11, the day after the trauma. The exposed dentin was covered with a composite resin and no splint was required. At the 12-weeks follow-up appointment a sinus tract was noticed, the radiography revealed a root resorption of 21 and an apical lesion of 11. The endodontic procedure was performed in 5 different sessions with nitrous oxide sedation and behaviour management in order to cater for the patient's specific needs. The regular follow-up ensures the absence of complications at one year.

CLINICAL IMPLICATIONS

These two situations illustrate the management of trauma injuries for autistic and mentally disabled patients. Patients suffering from these pathologies are more prone to dental trauma. Even though the trauma guidelines are well-known, conducting an appropriate treatment is not always easily feasible. It implies using sedation methods, including general anaesthesia, and adjusting procedures to the patients' behaviour. As for all dental trauma cases, rigorous follow-up is recommended. Especially for non-verbal patients, preserving the affected tooth maintains one of the most important ways of communicating with their family.

CONCLUSIONS

Existing obstacles to proper treatment to special-needs patients should be carefully assessed to provide suitable treatment in case of dental injuries. Patient-specific strategy should be designed, including with regard to sedation level.

00100162**Oral health of cerebral stroke patients****K. Gerreth¹, D. Forszt², A. Zalewska³, M. Maciejczyk⁴**

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AIM(S)

The study aimed to evaluate oral health status in cerebral stroke patients.

METHODS

The research was carried out in two health centres where post-stroke patients are rehabilitated. The study group included 138 individuals (63 (45.65%) females and 75 (54.35%) males), aged 34-84 years. The control group consisted of 40 healthy patients who attended regular dental visits. The participation of each patient in the study was voluntary after giving informed and written consent. The examination was performed, in artificial lighting, according to the World Health Organization criteria. Each tooth was assessed and scored as sound, decayed (DT), extracted because of caries (MT), or filled due to carious process (FT). The data obtained were used to calculate the DMFT index and dental caries prevalence. Plaque index (PII) and gingival index (GI) were also determined. The statistical analysis was carried out using the Mann-Whitney test, and the assumed level of statistical significance was $p < 0.05$.

RESULTS

None of the post-stroke patients had DMFT amounting to 0. The mean DMFT index in the study group was 25.43 ± 7.03 , whereas in the control group amounted to 18.23 ± 6.81 ($p < 0.0001$). The mean GI index and PI index in each group was 0.85 ± 0.80 and 0.32 ± 0.36 ($p = 0.0069$), and 1.59 ± 0.95 and 0.53 ± 0.55 ($p < 0.0001$), respectively.

CONCLUSIONS

The present study revealed unsatisfactory oral health status in cerebral stroke patients in comparison to their healthy control. It would be beneficial to provide systematic dental care and to implement a dental education program for this population of patients.

00100163**A two-year-evaluation of social attitudes and emotions of undergraduate dental students towards patients with disability - effects of a practical communication course****M. Egermann¹, P. Schmidt¹, G. Goedicke-Padligur¹, L. Crawford¹, J.P. Ehlers², A.G. Schulte¹**¹*Department of Special Care Dentistry, Witten/herdecke University, Dental School, Witten, Germany*²*Department of Didactics and Educational Research in Health Science, Witten/herdecke University, Witten, Germany***AIM(S)**

So far, in Germany, many dental students do not have enough experience in treating or handling patients with disabilities. To overcome this, dental students at our university take part in a special practical communication course. Objective of this study was to explore potential changes regarding social attitudes and emotions of dental students towards patients with disability by taking part in this course.

METHODS

A questionnaire basing on a social distance scale and published by Holzinger et al. (2020) was to be completed by students who were inscribed in the 7th semester before and after taking part in the special practical communication course in two study years (2019/2020 and 2020/2021). The questionnaire had three question-clusters: Emotional Reaction (1), Social Distance (2) and Readiness for treating patients with intellectual and/or physical disability. Students, who did not complete both questionnaires, were excluded from the study. The descriptive statistical analysis was made with Microsoft Excel 2016. This study was approved by the Ethics Committee of Witten/Herdecke University (174/2016).

RESULTS

The number of students inscribed in the 7th-semester was 86. Out of these, 46 persons (28 women, 17 men, 1 gender not declared, mean age 25.0 years) completed the questionnaire two times. After the practical course, compared to the answers before the practical course, in question-cluster 1 the students declared to have less fear, feel less uncomfortable, have less compassion and feel less insecure towards patients with disability. In question-cluster 2 a tendency to move next door to such a person could be observed. In question-cluster 3 more readiness for treating persons with disability for long-time was seen.

CONCLUSIONS

The special practical communication course not only allows to improve skills regarding dental treatment of patients with disability but moreover it improves the social acceptance of these patients.

00100164**Parental acceptance of advanced behaviour management techniques in paediatric dentistry****V. D'avola, M. Roner, D. Bellini, S. Zanarello, G. Angelo, S. Cirio, C. Salerno, M.G. Cagetti***University of Milan, Milan, Italy***AIM(S)**

Advanced behaviour management techniques (ABMTs) are used to achieve successful dental treatments in uncooperative children and adults. They include passive / active restraint (PR/AR), N₂O sedation and general anaesthesia (GA). This survey aims to assess parental acceptance of ABMTs in children with or without disabilities, during routine dental care (ODT) and emergencies (E).

METHODS

An anonymous questionnaire with a brief presentation of the different advanced behaviour management techniques investigated, through 11 multiple-choice questions, parents' acceptance. The questionnaire, already validated, was created on Google Forms™ and distributed at school or through social networks. Numeric variables were expressed as mean (±SD) and discrete outcomes as absolute and relative (%) frequencies. Discrete outcomes were compared with chi-squared or Fisher's exact test accordingly. The alpha risk was set to 5% and two-tailed tests were used.

RESULTS

One-hundred surveys were analysed from the following groups: parents of children without disabilities with and without previous experience of ABMTs (G1 n=25 and G2 n=25, respectively), parents of children with disabilities with or without previous ABMTs experience (G3 n=25 and G4 n=25, respectively).

G1 and G2 stated that they preferred N₂O sedation in both ODT (40% and 38%, respectively) and E (46% and 44%, respectively); G3 and G4 choose RA as preferred ABMT in ODT (46% and 40%, respectively). Regarding E, all groups agreed that GA was the first choice (ranging from 44% to 42%), equally to AR for G4 (42%). PR was the least accepted technique by all parents in both ODT and E situations. AR was found to be more acceptable in G3 and G4 compared to G1 and G2 ($p < 0.001$).

CONCLUSIONS

Parents were more willing to consent ABMTs in E; AR and N₂O sedation were the most preferred techniques and GA was more accepted than PR in both ODT and E situations.

00100166**Dental and craniofacial characteristics in a patient with Treacher Collins syndrome: A case report****A.M. Motta¹, L.D. Del Dot², S.C. Cantore³, C.A. Cazzolla⁴,
M. Dioguardi⁴**¹*Department of Neurosciences, University of Padua, Dentistry Section, Padua, Italy*²*Operative Unit of Oral Surgery for Special Needs and Dentistry, Borgo Valsugana, Trento, Italy*³*Department of Basic Medical Sciences, University of Bari "Aldo Moro", Neurosciences and Sensory Organs, Bari, Italy*⁴*Department of Clinical and Experimental Medicine, Riuniti University Hospital of Foggia, Foggia, Italy***CASE DESCRIPTION**

Treacher Collins syndrome (TCS) is an autosomal dominant condition of varying severity, affecting the tissues of the first and second branchial arches. These patients often require a combined orthodontic-orthognathic approach to correct their malocclusion. This is most often characterized by a short posterior vertical height and an anterior open bite. Orthognathic correction often requires Le Fort I and bilateral sagittal split osteotomies. We describe the craniofacial and dental characteristics of a 10-year-old Caucasian Italian boy with both the typical and less common findings of TCS syndrome.

CLINICAL IMPLICATIONS

Given the conflicting reports in the literature regarding the extent of anterior-posterior and vertical (superior-inferior) dysplasia of the cranial base, maxilla, and mandible, this study was designed to provide a comprehensive lateral cephalometric assessment of the craniofacial morphology of unoperated patient with TCS. In particular, one TCS patient underwent oral and dental examination, as well as cephalometric studies, including orthopantomography and lateral and anteroposterior cephalography, as part of their preparation for bimaxillary surgery. Cephalometric parameters assessing the relationships of the skull base, maxilla, and mandible were analysed and compared with age- and sex-matched control data.

CONCLUSIONS

The goal of the orthodontic therapeutic program in the TCS patient was the restoration of the balance of the entire stomatognathic system, represented by the primary triad: temporomandibular joint, mandibular joint and neuro-muscular system. This is of importance because an understanding of the underlying skeletal dysmorphology may shed light on the aetiology and growth pattern and impacts the overall treatment planning for skeletal correction. In this patient as well in other syndromic patients, once the first stage of the therapeutic treatment has been completed, will be useful the application of functional orthopaedic device to re-establish and re-educate neuro-muscular functionality, and to harmoniously mobilize all the structures involved in the cranio-facial malformation.

00100167

The oral health status of older people with intellectual disabilities in Ireland. Initial findings

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AIM(S)

To describe the oral status and function of the participants in the IDS TILDA study using the Oral Status Survey Tool (OSST) health evaluation survey. This includes tooth count; denture wear; occluding pairs of teeth and functional dentition; oral cleanliness; gum condition; carious cavitation and oral pain.

METHODS

A cross-sectional survey of the oral status and function of older adults with intellectual disabilities in wave 4 of the Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing (IDS TILDA) study. Following training and calibration, the validated OSST tool (Mac Giolla Phadraig et al, 2021) was used to record oral health status among participants. The statistical software SPSS V22 was used to conduct analyses. Ethical approval was secured.

RESULTS

From the 213 participants, the mean number of teeth was 14. Edentulism was reported by 26.2% (n=49) while denture wear was uncommon. Regarding oral function 83% (n=177) were missing at least one intercanine tooth. Regarding occlusion, 27.8% (n=50) had no occlusal contacts and a further 16.1% (n=29) had only anterior contacts, lacking any posterior contact. Ten per

cent reported oral pain in the last week (n=21). Regarding oral status, 44.9% (n=78) were found to have cavitated caries and 62% had poor oral hygiene.

CONCLUSIONS

This study confirms the poor oral health status of people with intellectual disabilities. The unique focus on function demonstrates highly prevalent inadequate dentition for aesthetic and occlusal function. There is a need to identify the oral status and function of people with ID to understand what causes these outcomes and how oral status impacts successful ageing for people with ID.

00100168

Oral health of the paediatric patients with special needs: The role of the Dental Hygienist

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AIM(S)

The aim of the study is to evaluate the impact of the Dental Hygienist on the oral health of Special Needs patients.

METHODS

The dental hygienist was included in the clinical pathways of 114 special needs patients at the Bambino Gesù Children's Hospital in Rome (Italy). 12 of 144 patients were treated in O.R. under general anaesthesia, 17 patients were treated at bedside during the hospitalization with a portable dental unit and 115 patients were treated at dental chair on an outpatient. The Visible Plaque Index VPI (Bay and Ainamo) and Gingival Bleeding Index GBI (Bay and Ainamo) were measured for the 115 patients treated on an outpatient: 57 patients were evaluated at the first visit (T0), after 3 months (T1) and after 6 months (T2), 25 patients were evaluated at T0 and after 6 months and 33 patients were only evaluated at T0.

RESULTS

Single recordings of V.P.I and G.B.I at T0 T1 T2 revealed a clinical improvement in the 57 patients, with an average reduction in V.P.I and G.B.I of 16% and 22%, respectively. After 6 months (T1), there was a 22% drop in V.P.I and an 18% reduction in G.B.I in the 25 patients. The 29 patients who were treated

at the bedside and under general anaesthesia had the highest detectable inflammatory indices and they did not cooperate with subsequent evaluations. 33 of 144 patients were not re-evaluated because they came from different regions of Italy.

CONCLUSIONS

The present study shows that introduction of a dental hygienist into the treatment pathway results in an improvement of oral health of special needs patients with a reduction of inflammatory indices, improving access to care and increased awareness by parents/caregivers of the importance of daily oral hygiene. This emphasizes the importance of promoting Dental Hygienists' inclusion in National Health Service facilities and in home care.

00100169

How accurate is the treatment adjunct selection in special care dentistry?: A pilot study

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AIM(S)

This pilot study aims to test the feasibility of variable construction, collection, and analysis prior to a main study to determine the accuracy of adjunct selection in patients requiring special care dentistry (SCD). The accuracy will be achieved in the main study by comparing which adjunct an operator selected at assessment with the actual adjunct ultimately used. Predictors relevant to the accuracy will be also identified.

METHODS

This study pilots a protocol ultimately designed for use in a 10-year retrospective chart review in Dublin Dental University Hospital (DDUH). Ethical approval was secured. Adopting and adapting a de novo protocol, twenty electronic dental records will be randomly retrieved for the pilot. Sociodemographic data will be recorded. Variables will be recorded to identify which adjunct was predicted for use in the assessment visit (predicted treatment adjunct (Pre-TA)) and the actual modalities used during the course of treatment (actual treatment adjuncts (Act-TA)). Outcomes can be scored as either non-pharmacological, inhalation sedation, intravenous sedation, or general anaesthesia. Agreement statistics will be generated and analysed. Predictive variables of accurate selection will be identified.

RESULTS

The above protocol will be tested in this pilot study. Given the multiple ways in which predicted variables can be recorded, an exploratory approach to

variable construction will be adopted. Judgement will be made on inclusion and exclusion criteria and power calculation will be performed to inform the main study.

CONCLUSIONS

We will share the results of this pilot at the conference. This pilot study will inform the conduct of the main study, which we intend to complete immediately. This will ultimately lead improved decision-making, better use of healthcare resources, less inappropriate care, and increased efficiency of assessment.

00100172

Surgical avulsion of residual root in a patient with autism spectrum disorder. A case report

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CASE DESCRIPTION

A 9-year-old patient suffering from Autism Spectrum Disorder presented to our attention at the Department of Conscious Sedation, U.O.C. Maxillofacial Surgery and Odontostomatology, Fondazione IRCCSS Ca' Granda Ospedale Maggiore Policlinico, University of Milan, with the presence of residual root.

CLINICAL IMPLICATIONS

The patient was not under pharmacological treatment and showed a poor compliance with the only inhalation sedation with a mixture of nitrous oxide and oxygen. The treatment plan included a root extraction surgery of the element 7.5 that was carried out with intravenous administration of benzodiazepine in combination with conscious sedation with a mixture of nitrous oxide and oxygen. According to the American Society of Anaesthesia, "Conscious sedation is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained". During surgery, premedication with 5 mg of intravenous Midazolam was carried out. Inhalation sedation was then performed with a mixture of nitrous oxide (55%) and oxygen (45%) at a flow rate of 6 litres per minute. Local anaesthesia with articaine 4% and adrenaline 1:100,000 is performed, followed by extraction of the root of the deciduous element.

Monitoring of vital parameters remained normal both during the operation and at discharge.

CONCLUSIONS

With the aid of conscious sedation, frail patients with dental problems can be treated successfully without the necessity of general sedation.

00100174

Case-report of an 8-day-old newborn with Holoprosencephaly treated with a otolaryngological - orthodontic approach

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CASE DESCRIPTION

Holoprosencephaly (HPE, MIM 236100) is a complex human brain malformation resulting from incomplete cleavage of the prosencephalon into right and left hemispheres. Sometimes Congenital Nasal Pyriform Aperture Stenosis (CNPAS) is found in patients with mild form of holoprosencephaly and a surgical treatment is required. Low-invasive surgical approaches today involve Balloon dilation of the piriform opening. In this case-report we present the case of an 8-day-old girl diagnosed with Holoprosencephaly, congenital nasal pyriform aperture stenosis and concomitant presence of solitary median maxillary central incisor treated with combined otolaryngological - orthodontic approach and examined by neonatologist, geneticist, pneumologist, ENT doctor and paediatric dentist.

CLINICAL IMPLICATIONS

A nasal endoscopy revealed an obstruction of the right nasal cavity, so the ENT doctor widened the nasal cavities and stabilized them with Balloon dilation technique. The paediatric dentist evidenced a palate with markedly ogival shape, anterior vertex growth direction and a reduction in the transverse diameters of the upper jaw. After the surgery, it was decided to increase the respiratory space by applying a Neonatal Palatal Expander Plate (NPEP).

The orthopaedic maxillary expansion therapy started to favour the distraction of the palate at the level of the median palatine suture and assist the nasal dilation. After the insertion of the device the patient started swallowing and sucking normally: the physiological sucking-swallowing mechanism was therefore activated.

CONCLUSIONS

In infants with nasal pyriform aperture stenosis the use of NPEP can be useful to ensure the stability of the nasal dilation, without complications. The multidisciplinary approach was fundamental, and in particular the close collaboration between the ENT doctor and orthodontist is essential for the management of the patient with congenital nasal pyriform aperture stenosis that we presented.

00100175**Case report of two male adults with fibrodysplasia ossificans progressiva(FOP): From the best to the worst****C. Vion¹, C. Strazielle², C. Jantzen²**¹*Faculty of Odontology University of Lorraine, Vandoeuvre-Les-Nancy, France*²*Faculty of Odontology, Chru Nancy, Service of Adult Special Care & Ccmr Orares, Memphis, United States***CASE DESCRIPTION**

We report two cases, both male adults with FOP cared for in our specialized dental service, in order to underscore factors susceptible to worsen the dental care difficulties.

The first patient, 33 years old, was bound in a wheelchair from the age of 18. He presented a relatively stable motor disability with heterotopic calcifications in limbs and chest associated with a mild respiratory distress. Despite good dental hygiene, several caries on posterior teeth were attended to without local anaesthesia and restored with onlays. Regular consultations and fluoride application with flexible individual trays permitted to preserve the dental health of the patient.

The second patient, 22 years of age, presented an advanced clinical situation with multiple ossifications, major scoliosis and a respiratory distress syndrome that did not allow general anaesthesia. He reported generalized dental pain and a great fear for dental care. Intraoral examination was limited and radiographs were impossible due to masticatory muscle calcifications and temporomandibular joint deformities reducing the jaw opening to 8 mm. Severe dental caries and generalized gum inflammation were observed. The patient had a completely liquid diet by mouth. In the context of his disease, no treatment option could be proposed to the patient except a drug therapy to reduce the infections and pain.

CLINICAL IMPLICATIONS

Fibrodysplasia ossificans progressiva (FOP) is a rare autosomal dominant disorder characterized by congenital skeletal deformities and soft tissue masses that progress into heterotopic ossification of the skeletal muscles, fascia, tendons and ligaments. For these patients, dental treatment options are limited by the risk for local anaesthesia and traumatic procedures to induce ossifications of the head and neck soft tissues.

CONCLUSIONS

The two cases underlined the importance of dental preventive actions in FOP in order to avoid catastrophic clinical deterioration for which care options are limited or nonexistent.

00100176**An experience of rehabilitation of a patient with oral aversion due with tube feeding****T. Jinushi, E.N.D.O.H. Endoh, T. Nomoto***Nihon University School of Dentistry at Matsudo, Matsudo-City, Japan***CASE DESCRIPTION**

The case was chromosome deletion syndrome and was 1 year and 9-month-old at first visit. The mother's chief complaint was refusal to eat by mouth. He had tracheostomy due to tracheobronchomalacia and was prohibited from oral intake at 1 year and 5-month. He completed surgery for cleft lip and resumed oral intake. At first visit, he was able to swallow a small amount of thickened water. However, he tended to refuse oral intake.

CLINICAL IMPLICATIONS

We instructed oral intake with a small amount of thickened water before tube feeding and buccinator muscle massage. At 5th visit (2 years and 3 months), he was able to take it orally twice a day, but tube feeding during night was continued. So, we instructed improvement of life rhythm and sitting training to make time for hunger. At 13th visit (4 years and 1 month), he had a gastrostomy and we expected an increase in oral intake. However, his oral intake did not increase as much as expected due to his bad physical condition. We continued training for oral intake with his home visiting nurse while considering his physical condition. At 22nd visit (6 years and 9 months), he has been able to take a stable oral intake since entering primary school.

CONCLUSIONS

As in this case, many children who have to manage tube feeding due to difficulty in oral intake are refused oral intake. Dysphagia in children needs to be managed in consideration of not only the functional and morphological

development of the oral region but also the psychological development. In this case, oral intake became possible by continuing these instructions in collaboration with visiting nurse. In the future, we would like to improve QOL by continuously responding to changes in feeding function due to growth.

00100177**Oral health-related quality of life among persons with intellectual and developmental disabilities****G.X.D. Lim¹, C. Goh², R. Nair³, H.J. Tong², G. Lee², K.Y. Ang⁴, X. Gao⁵, S. Tan⁶**

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AIM(S)

The aim of the study is to assess the oral health related quality of life among persons with intellectual and developmental disabilities (IDD).

METHODS

A cross-sectional study was carried out through Early Intervention Programme For Infants and Children centres, special education schools, and adult associations in Singapore between August 2020 to August 2021. A sample of 497 caregivers of children (< 19 years old) and 122 caregivers of adults (≥ 19 years old) completed the survey. Data was collected through a previously piloted questionnaire in hardcopy (for caregivers of children) and online (for caregivers of adults). The response rate was 50.2%. Data on sociodemographic information, oral health behaviours and practices and dental utilisation were collected, and Oral Health-Related Quality of Life (OHRQoL) was assessed using the Early Childhood Oral Health Impact Scale (ECOHIS). Statistical analysis was carried out using the Kruskal-Wallis H test.

RESULTS

424 (68.5%) of all respondent's dependents were males. 373 (60.3%) were Chinese, 159 (25.7%) Malay, 54 (8.7%) Indian, and 33 (5.3%) were of other races. 415 (83.5%) of caregivers of children, and 115 (94.3%) of caregivers of adults reported some negative impact of oral health. The median total score for ECOHIS was 5 (interquartile range (IQR) 0 – 13) for children aged 6 or younger, 10 (IQR 4-16) for those between 7 to 18 years, and 13 (IQR 6 – 18) for adults. Similarly, a higher child impact score and family impact score was noted for adults as compared to children and adolescents. Commonly reported impacts included pain in the teeth, mouth or jaws, difficulty pronouncing words, trouble sleeping, and irritation and frustration due to dental problems and dental treatments.

CONCLUSIONS

Persons with IDD in Singapore experience negative OHRQoL, which is significantly poorer amongst adults. Further research is required to understand this predicament, and to develop suitable dental programmes.

00100178**Oral health and disability in medico-social services and establishments in Ile-de-France (ESMS): Results of the regional survey conducted in 2021****C. Rey-Quinio¹, A. N'gouma², J. Baraduc³, F. Keclard⁴**¹Conseiller Médical, ARS, Direction De L'autonomie, Saint-Denis, France²Rhapsod'if: Réseau Francilien De Prévention, Formation Et Soins Dentaires Adaptés Au Handicap - Maisons-Alfort, France³Praticien Conseil, ARS IDF, Direction De L'offre De Soins, Saint-Denis, France⁴Chargée De Mission, ARS IDF, Direction De L'autonomie, Saint-Denis, France**AIM(S)**

Several reports highlight the lack of access to oral health for people with disabilities (PH), especially those in medico-social structures (ESMS). Carried out in February 2021 by ARS IDF with the Rhapsod'if network, the objective of this regional survey is a check-up on the oral health of this population, in order to guide the actions to be reinforced and /or deployed.

METHODS

365 ESMS (out of 922) responded to an electronic questionnaire including administrative, data on oral health, and the difficulties in organizing oral follow-up.

RESULTS

Oral health organization. Only 25% (93) of ESMS declare a dental referent (mainly nurses). Oral health is only included in 1/3 of establishment and in half of medical projects. There is a lack of partnerships with other dental care providers: (41%) with a dental care network, (27%) with a hospital, and (16%) with a private dental practice. The delay for dental appointments is 2 to 4 weeks long. Difficulties in organizing oral health were mentioned by 40% of ESMS:

lack of dental surgeons trained in disability (79%), long appointments when general anaesthesia is required (68%), difficulties in collaboration with PH (71%). The Covid19 pandemic worsened moderately the situation (44% of ESMS). The designated priority needs are improvement of prevention and screening programs (87%), effective provision of care (67%), and training in oral health and hygiene for ESMS staff.

CONCLUSIONS

Dental care of PH in ESMS is a major issue of public health. If care seems more organized in boarding structures, it is less so in day or semi-boarding structures. With the Rhapsod'if network, the ARS IDF promotes in 2021-2022 the development of training programs for dental care including dental care contacts in medico social ESMS.

00100179**Comparative evaluation of Audio-visual & verbal education on Oral Health Related Quality, Dental Anxiety, Dental Neglect of special children of an institute of Moradabad, India****A. Jain, V. Singh***Teerthanker Mahaveer Dental College and Research Centre, Moradabad, India***AIM(S)**

To compare Audio-visual & verbal education on Oral Health Related Quality of life, Dental Anxiety, Dental Neglect of special children of an institute in Moradabad, India.

METHODS

The current longitudinal interventional study was conducted to check the efficiency of Audio-visual & verbal education on OHRQoL, Dental Anxiety, Dental Neglect of special children of an institute in Moradabad, U.P., India. A 14-item questionnaire, OHIP-14, emphasizes on seven proportions of impact was used to collect information on OHRQoL. Corah Dental Anxiety Scale (DAS) was used to collect data on Dental Anxiety. A prevalidated revised proforma of Dental Neglect Scale (DNS) was used to gather information on Dental Neglect. After collecting the initial Baseline data, the sample was divided into two groups Verbal Education Group (n=50), Audio-visual Education Group (n=50). Then Oral health education (OHE) was provided verbally to Group I patients & OHE with Audio-Visual aids was given to Group II special children. OHE was repeated after each two months. At every 6, 12 months' questionnaire and clinical examination was repeated to evaluate the effectiveness of OHE.

RESULTS

In Verbal Education Group mean total OHIP-14 score was recorded as 13.56 ± 6.81 while 15.32 ± 8.75 in Audio-visual education group. Mean DAS score for $DAS \geq 15$ (severe anxiety) was found to be 1.65 ± 1.28 in Verbal education group while 1.94 ± 2.18 in Audio-visual education group. Mean DN score for $DN \geq 15$ (severe Dental Neglect) was 3.45 ± 2.33 in Verbal Education Group while 2.95 ± 2.57 in Audio Visual Education Group.

CONCLUSIONS

The study concludes that programmes of this kind may be beneficial in improving many dimensions of dental health of an individual that includes physical health, emotional well-being, OHRQoL, inter-personal relationship, the fear related towards dental treatment, the anxiety related to dental treatment, the delay in assessing dental care due to dental neglect.

00100180**Dental anomalies and rare diseases****E. Peta¹, E. Pozzani², P. Armi³, P. Salerno⁴, U. Esposito⁵, O. Pagnacco⁶, A.M. Baietti⁷, C.P. Vellani⁸, M. Bendandi⁹**

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AIM(S)

Rare diseases (RD) are defined by a prevalence lower than 5 cases per 10.000 people; dental anomalies are typical of many of them. The aim of this study was to identify the most frequent dental defects in RD. The study has involved 6 public special care dentistry departments of Italian Association of Special Care Dentistry (SIOH).

METHODS

A comparative observational multicentre case-control study has been conducted to detect dental anomalies; number, development, volume, structure and position defects were recorded in 2 patients for each of the following RD: Rett S., Wolf-Hirschhorn S., Coffin-Siris S., Adams-Oliver S., X-fragile S., Krabbe Leukodystrophy, Noonan S., Oculofaciocardiodental S., Edwards S., Cornelia de Lange S., Osteopetrosis, Bullosa Epidermolysis, Deficiencies of the crotonase enzyme, Lubs S., Goldenhar S., Neurofibromatosis, Gorlin-Goltz

S., Peter's Plus S., Pierre-Robin S., Incontinentia Pigmenti, Rubinstein-Taybi S., Ectodermal Dysplasia, Williams S., Vitamin D resistant hypophosphatemic rickets, Beckwith-Wiedemann S., Sotos S. 52 patients were examined, aged 11 to 28 years.

RESULTS

All patients manifested dental anomalies and often an association of them was seen; number and development anomalies were found in 20 (38,46%) and in 22 (42,30%) patients respectively. Volume and structural defects were detected in 28 (53,84%) and in 44 (84,61%) respectively. Furthermore, position anomalies were detected in 16 (30,76%) patients. 79% of genes involved in dental defects have been identified by recent studies and, in more than 4% of them, the responsible loci for the frequent association is known. The sample can be seen as representative of RD population ($p < 0.05$).

CONCLUSIONS

Dental anomalies are always present in RD. Dental check-up is mandatory since birth. Structural defects of enamel and dentin are frequent and represent a higher caries risk for RD patients. Early diagnosis of any dental and dentin anomalies is the best way to intercept and treat them, before they could cause secondary oral pathologies.

00100182**Global dental care of a patient with complex auto-immune disorders and dental anxiety****L. Gely, N. Decerle***Chu De Clermont-Ferrand, Service D'odontologie, Université Clermont Auvergne, Croc, Clermont-Ferrand, France***CASE DESCRIPTION**

Ms. P, 58 years old, has a history of Gougerot-Sjögren syndrome, fibromyalgia, Hashimoto disease, lupus, osteoporosis, and chronic bladder infection. This combination has dental repercussions because of alteration of the immune system, chronic inflammation and pain. Ms P had not seen a dentist for many years and had been unable to find a dentist willing to treat her locally. On presentation to the hospital service, she was desperate for help and complained of dry mouth, very sensitive gums, unstable dentures and several broken and painful teeth. Furthermore, she was very anxious about receiving dental treatment in the chair.

CLINICAL IMPLICATIONS

The first step was to manage the patient's pain. To stabilize the neuronal field, assessment and treatment in a specialized orofacial pain unit was organised. Simultaneously, using non-pharmacological behavioural support, conservative treatment was gradually completed: endodontic treatment of 13, 14, 23, 36, 44, 46; pulpotomy of 47; and restoration of 44, 45, 33. The patient's vertical dimension was increased by 5mm, and wax ups were prepared. A mock up with a resin partial denture was tested for patient validation. After two weeks of function, the new vertical dimension was approved. Crowns, overlays, and inlay-onlays in Emax ceramic were conceived using CAD/CAM technology based on the wax up and an optical impression. New partial removable dental dentures were adjusted to be the least traumatic possible with relation to the Gougerot-Sjögren syndrome. The final result restored both aesthetics and oral function.

CONCLUSIONS

Thanks to the global rehabilitation, the patient's general pain levels were lowered during auto-immune crises. The patient reported an improved social life and no longer expressed any dental anxiety. Dental care can have life-changing consequences and our duty is to provide care to every patient in need, even when medical and social circumstances combine to make treatment complex.

00100183

Radiographic prevalence of external crown resorption in patients with Junctional Epidermolysis Bullosa and Amelogenesis Imperfecta. Chilean cohort

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AIM(S)

To determine the radiographic prevalence of external crown resorption in the Chilean cohort of patients with Junctional Epidermolysis Bullosa (JEB) and Amelogenesis Imperfecta (AI).

METHODS

Retrospective cohort study of patients diagnosed with JEB from 2005 to 2022 at the Special Care Dentistry Unit, Universidad de Chile. Patients' molecular diagnosis was obtained from the medical records at DEBRA Chile. Radiographic studies from all patients were analysed as available. Bitewing, periapical, panoramic and CBCT techniques were included. Presence of external crown resorption (ECR), semilunar edges (SE) and multiple small cusps (MSC) were analysed.

RESULTS

Thirty-two patients with JEB were registered at DEBRA Chile from 2005 to 2022. Radiographs were available from thirteen patients (8 male and 5 female), on average 4 radiographs were analysed per patient (1 – 12). Eight had JEB severe and five JEB intermediate. The analysis showed that 53.8% (n=7) presented ECR, 69.2% (n=9) presented SE, and 76.9% (n=10) presented

MSC. ECR was described as early as 9 months and late as 12 years, average 9.8 years. Eleven teeth were affected with ECR: temporary incisors (n=1), permanent central incisor (n=2), permanent lateral incisors (n=4), premolars (n=1), first permanent molars (n=2), and second permanent molars (n=1). On average 1.57 tooth per patient presented ECR.

CONCLUSIONS

The prevalence of external crown resorption in the Chilean cohort of patients with JEB due to LAMB3 mutation was 53.8%. The most affected tooth was the lateral incisor. Preventive intervention protocols should consider this feature, with serial radiographic studies to identify early stages of ECR in order to be able to avoid tooth loss.

00100184**Oral findings and different modalities for dental management among siblings with Fanconi Bickel Syndrome: Case report****A. Al Assaf***Senior Registrar Paediatric Dentist, Jeddah, Saudi Arabia***CASE DESCRIPTION**

Fanconi Bickel Syndrome (FBS) is a rare autosomal recessive disease characterized by the accumulation of a substance called glycogen in different parts of the body. To date, the prevalence of FBS is less than 200 cases worldwide. An 8-year-old male patient, (ASA III) diagnosed with FBS with NKDA, taking Phosphate 250mg PO Q6h and Alfacalcidol 16 drops PO daily medications. The patient now is under care of paediatric endocrinologist. He has delayed teeth eruption and multiple premature loss of primary teeth. Furthermore, his behaviour is positive toward dental treatment. His sister is 5 years old, (ASA III) diagnosed with FBS with NKDA and she is under the same medications. She has multiple carious teeth and mild gingivitis; her behaviour is negative towards dental treatment, and she needed treatment during COVID-19 period.

CLINICAL IMPLICATIONS

All patients affected by FBS need counselling and educating on the importance of maintenance of good oral hygiene. Periodic dental examinations each 3 month is recommended. Another point is that premature loss of primary teeth can be managed by oral rehabilitation in order to facilitate speech, mastication, and aesthetics. It is very important to be careful about the periodontal state of the teeth and we must not damage them more. And using minimisation of Aerosol Generating Procedures and minimally invasive methods are recommended in some situation and case-based selection.

CONCLUSIONS

In conclusion, every patient is considered unique, even if they are siblings. The knowledge of craniofacial features, various dental abnormalities, caries management alternatives in the COVID-19 period, different modality for treatment and behaviour management helps paediatric dentist to present the best treatment available with a team-work, which results in improving the quality of life for FBS patients.

00100185

What factors increase the tendency to refer people with disability in oral health care? A qualitative study of the experiences of clinicians

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AIM(S)

To understand the difficulties that are experienced by oral health professionals when managing people with disability that reduce their willingness to treat patients with special needs and likelihood to refer.

METHODS

Twenty-seven oral health professionals from four public dental services in Australia, including dentists (n=21, 78%) and oral health therapists (n=6, 22%) with clinical experience ranging from 3-48 years (Average 22.9 years), responded to invitations to participate in this study. Semi-structured interviews were conducted using video conferencing software, with questions focussed on the difficulties participants experience in providing oral health care to people with disability, particularly those factors that influenced their decision to refer. Transcripts of participants' responses were analysed qualitatively using inductive thematic analysis.

RESULTS

Clinicians participating in this study were more likely to refer patients with special needs when they experienced challenges related to communicating with and managing the behaviour of these individuals. Concerns about the safety of providing treatment to patients with special needs, primarily in

relation to the implications of their medical conditions and/or medications, was also a common theme. Other reasons that decreased the willingness of clinicians to treat patients with special needs included difficulty liaising with carers and other health professionals, the physical challenges of providing dental treatments, and time-related pressures.

CONCLUSIONS

Improving training and experience in communication and behaviour management strategies for patients with disability may improve the experience of oral health professionals treating people with special needs and reduce the likelihood of referrals in this patient cohort.

00100186**Evolution and revolution: A tale of five teeth****J. Rice¹, L. Parkinson², N. O'connell³, B. O'mahoney⁴, A. Dougall²**¹Trinity College Dublin, Dublin, Ireland²Trinity College Dublin, Dublin Dental University Hospital, National Coagulation Centre: St James Hospital, Dublin, Ireland³National Coagulation Centre, St James Hospital, Dublin, Ireland⁴Trinity College Dublin, Irish Haemophilia Society, Dublin, Ireland**CASE DESCRIPTION**

Over the last 60 years advancements in the treatment of haemophilia are leading the way in improving clinical outcomes for patients. This case study is unique as it chronologically details the management of five dental extractions over the life-course of a 57-year-old Irish male who was born with severe haemophilia B. His first extraction during adolescence required two weeks hospitalisation with no factor replacement therapy available. By contrast his most recent extraction required no additional haemostatic treatment as he is the first person in Ireland to be 'cured' of haemophilia via gene therapy.

CLINICAL IMPLICATIONS

A retrospective examination of clinical notes and dental history revealed that his first extraction as an adolescent required several weeks hospitalisation with his mouth 'packed with rags' as no treatment was available at the time. His second extraction in the early 90s also required hospitalisation for several days, multiple doses of human-derived factor replacement and a protocol that forbade suturing. This created a negative effect on his attitude toward dental treatment but during the interceding years stepwise improvements (extractions three and four) introduced synthetic factor replacement, eliminating the fear of contaminated blood products. Then the introduction of long-acting extended half-life factor replacements allowed for a home administered pre-operative factor replacement and no hospitalisation.

CONCLUSIONS

This is the first case report to document an extraction following successful gene therapy for a patient with haemophilia B. Dental teams must keep abreast of advancements in treatment and understand changing risks over time. Even in the absence of gene therapy, the shift toward patients being on novel non-substitutional therapies, prophylactic long-acting factors and antifibrinolytics have eliminated the need for exposure to multiple doses of factor replacement, thus reducing the risk of inhibitor formation, clinical burden and associated costs.

00100187

Incidental finding of a radiolucent lesion on the jaw of a patient with special needs seeking orthodontic treatment

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CASE DESCRIPTION

An 18-year-old Malay Male came requesting for orthodontic treatment. He is generally fit and healthy. His mother claims he was diagnosed with autism spectrum disorder and is selectively communicative but obeys commands. She also claimed he had no history of dental pain or discomfort. Upon examination, buccal expansion on retained roots of tooth 46 was noted. He also presented with multiple carious teeth, root stumps and poor oral hygiene on a Class II/1 on Class 2 Skeletal base. Further investigation revealed a round, unilocular intraosseous radiolucency extending from teeth 45 to 48 (37.1 mm (mesio-distally) with diameter of 24x25mm). The Oral Surgery team was approached for the cyst enucleation, root stump and orthodontic extractions under general anaesthesia. This was planned prior to a biopsy due to the size and radiographic presentation of the lesion.

CLINICAL IMPLICATIONS

Routine dental treatments like scaling and fillings were done chairside. Patient managed to tolerate basic treatments but had difficulties responding to the electric pulp test as he was not used to verbalising pain or discomfort. Under general anaesthesia, indicated teeth were extracted and the cyst was enucleated with peripheral osteotomy and Carnoy's solution application on the margins to prevent recurrence. Non-sustained hypotension was noted during the surgical procedure and transient septicemia was suspected. He was observed for 2 days but noted pain scales of only 2 or 3/10 throughout his hospitalisation. After 2 weeks, his healing was uneventful, and oral hygiene

improved using positive reinforcement and encouraging his parent's participation. Histopathological findings revealed the lesion was a radicular cyst from the long-standing infected tooth.

CONCLUSIONS

Multidisciplinary management is vital for optimum oral care in special needs patients and no treatments are contraindicated if a good team between clinicians and caregivers can be established. Perception of pain may be under reported in patients with autism spectrum disorder.

00100188

Caries burden and self-reported oral health-related habits in blind and visually impaired persons

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AIM(S)

The study investigated caries experience in correlation with self-reported oral health-related habits and quality of life in a sample of blind and visually impaired persons from Croatia.

METHODS

The research was a part of the "Project for oral health promotion in blind and visually impaired persons" conducted at the Zagreb University School of Dental Medicine, from 2014 till 2018, with approval of the Ethics Committee. Project provided dental exams, prophylaxis, preventive procedures, and oral hygiene instructions. With exclusion of two individuals (non-cooperative and dependent person), the sample consisted of 85 adults: 42 females and 43 males, 50 (58.8%) blind and 35 (41.2%) visually impaired individuals. Age range was 18-98 (median=54.0, IQR=33.5-66.0), with five age groups. WHO methodology (2013) for recording dental status and questionnaire on oral health were used. Mann-Whitney U, Kruskal-Wallis H-test and Spearman Rho correlation were applied ($p < 0.05$).

RESULTS

The median DMFT (Decayed, Missing and Filled Teeth) index score was 17.0 (IQR=12.5-22.0), with no significant difference between sexes nor between blind and visually impaired. The occurrence of untreated caries was low (median D-component =1.0), while the median F-component was 6.0. There was a significant increase in M-component and DMFT in older age groups. DMFT was significantly correlated with self-perceived dental and oral health, difficulties with biting/chewing foods or speech, feeling tense and reduced social activities. DMFT did not correlate with frequency of tooth brushing, time since last visit to a dentist, smoking or level of education.

CONCLUSIONS

Study revealed high caries burden in blind and visually impaired individuals, which affected their quality of life. Low number of decayed teeth reflects available public dental care in Croatia, however, preventive care should be provided for this vulnerable group to overcome barriers and ensure equity in oral health.

00100189

Traumatic dental injuries in blind and visually impaired persons

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AIM(S)

The aim of this study was to determine the frequency and type of traumatic dental injuries in a sample of blind and visually impaired persons from Croatia.

METHODS

The research was a part of the "Project for oral health promotion in blind and visually impaired persons" conducted at the School of Dental Medicine, University of Zagreb, Croatia, from 2014 till 2018, with approval of the Ethics Committee. Project provided dental exams, prophylaxis, preventive procedures, and oral hygiene instructions. The sample consisted of 85 adults: 42 females and 43 males, 50 (58.8%) blind and 35 (41.2%) visually impaired individuals. Age range was 18-98 (median=54.0, IQR=33.5-66.0). WHO methodology (2013) for recording dental trauma and questionnaire on oral health were used. Spearman Rho correlation and Fisher-Freeman-Halton's exact test were applied ($p < 0.05$).

RESULTS

The frequency of dental trauma in the total sample of patients was 16.6% ($n=14$). There was no significant difference between visually impaired and

blind patients nor between sexes. Traumatic injury of a single tooth was the most frequent, 64.3% (N=9), two teeth were affected in 21.4% (N=3) and three teeth in 14.3% (N=2) of patients. Dental trauma frequency was positively correlated with the education level ($p=0.008$). Ten patients (71.4 %) had treated dental trauma.

A case report of a blind 74-years old male patient with two avulsed teeth in his youth, that were never prosthetically replaced, will be included in the presentation.

CONCLUSIONS

Blind and visually impaired individuals are a vulnerable group susceptible to traumatic dental injuries. Due to vision disorder, there is a lack of aesthetic perception and perception of oral health needs, so a significant number of cases are not treated even in the case of avulsion of teeth.

00100190

Oral manifestations and complications in childhood acute lymphoblastic leukemia and non-hodgkin lymphoma in children

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AIM(S)

This study aims, through a review of literature and series of cases; to increase awareness of primary oral alterations as warning sign for diagnostic suspicion of acute lymphoblastic leukaemia (ALL) and non-Hodgkin lymphomas (NHL). To improve supportive care in the management of secondary oro-dental complication in the ALL and NHL treatment.

METHODS

A systematic review of literature was conducted on the primary and secondary oro-dental manifestation in these Hematologic Malignancies (HM) and we report a case series of patients summarising the experience of the Meyer Children's University hospital.

RESULTS

Improvement in long-term survival rate in child affected by ALL and NHL has been attributed to growing knowledge about the diseases' biological signatures and clinical features and ameliorating supportive care. Primary oral alterations are unusual in ALL and NHL and are mainly related to indirect signs of cytopenia. Rarely they can appear with gingival enlargement due to

lymphoproliferative tissue. Around 90% of ALL and NHL patients suffer from secondary oro-dental complications, mainly toxic or infective. These are consequences of a complex interplay among an immunocompromised status related to the underlying disease and therapies and the mucosal cytotoxic side effect of drugs. Acute and long-term oral complications can affect the teeth, oral mucosa, bone tissue and contribute to opportunistic infections, dental decay, osteonecrosis.

NHL e ALL clinical trials are multi-agent chemotherapy based. Methotrexate (MTX) is one of the bone marrow medications of diverse trials. It shows a characteristic toxic effect on the gastrointestinal and oral epithelium, depending on the schedule of administration and individual susceptibility. In NHL, high-risk groups undergo higher doses and longer infusion times than low-risk groups, resulting in a more toxic course. Persistent or recurring mucositis can be related to overlapping infections due to the herpes virus, fungal or invasive agents.

CONCLUSIONS

Dental care should be planned at diagnosis of HM to reduce oral and systemic infections and prevent mucositis and other complications.

00100191**Behavioural guidance in special needs dentistry: Primary-care dentists' perception****J. Francis¹, M. Mohamed Rohani¹, S.Z. Hamzah²**¹Faculty of Dentistry, University Malaya, Kuala Lumpur, Malaysia²Faculty of Dentistry, University Malaya, Kajang Hospital, Malaysia**AIM(S)**

This pilot study aims to determine the perception of dentists in the primary-care setting in Selangor about Behavioural Guidance in Special Needs Dentistry (SND) post-course. Behavioural Guidance is important to establish communication, alleviate dental fear, building a trusting relationship, and promote a positive attitude towards oral health.

METHODS

A convenience sampling method (N=30) was chosen to conduct the survey consisting of all primary care dentists who attended a course entitled 'Behavioural Guidance in Dentistry' at the state level in Selangor. The survey instrument was adapted from a previous study with main outcome measured-demographic, knowledge, perception, and practice on SND and behavioural guidance as well as perception on course/training. Descriptive analysis was performed using SPSS (22.0). The sample cannot be seen as representative of the population studied due to the small sample size and non-randomised sampling method; however, it can act as a baseline for future research.

RESULTS

Although majority of the subjects were aware of the term SND [30(100%)] and Behaviour Guidance [21(70%)], only half of them [15 (50%)] were able to describe the terms. Most of them obtained the related information via continuing education classes during work [14(46.7%)] rather than during undergraduate studies [10(33.3%)]. 15(50%) claimed to practise 'Behavioural Guidance' in adults with Special Needs (SN), the other half had given the

reasons for not practising; lack of experience, time consuming and too difficult to manage them. The behavioural guidance practised were mainly virtual aid, tell-show-do and reward system, which claimed as successful.

CONCLUSIONS

Their 'neutral' perception [20(66.7%)] about behavioural guidance had turned to 'very positive' [23 (76.7%)] post-course. This pilot study provides as a reference to conduct a similar course at a national level as well as to incorporate behavioural guidance topics in undergraduates' curriculum to train the young primary care dentists to manage adults with SN with behavioural issues.

00100192**Oral manifestations in a cohort of paediatric short bowel patients****F. Gigola¹, C. Grimaldi¹, F. Cairo², F. Cammarata-Scalisi³, M.C. Cianci⁴, R. Coletta⁴, A. Morabito⁴, M. Callea⁵**¹Department of Paediatric Surgery, Meyer Children's Hospital, Florence, Italy, Firenze florence, Italy²Unit of Periodontology, University of Florence, Florence, Italy³Regional Hospital of Antofagasta, Antofagasta, Chile⁴Department of Paediatric Surgery, Meyer Children's Hospital, Florence, Italy⁵Paediatric Dentistry and Special Dental Care Unit, Meyer Children's University Hospital, Florence, Italy**CASE DESCRIPTION**

Oral health in patients with Short Bowel Syndrome (SBS) is not well studied in the literature.

We report on 5 patients between 4 and 18-year-old affected by short bowel syndrome (SBS) which is a condition of intestinal loss due to congenital or acquired diseases, and therefore these patients need to rely on Parenteral Nutrition (PN) and Parenteral Support (PS) to sustain growth. In our series we found an extensive manifestation of orodental conditions such as enamel hypoplasia, microdontia, macrodontia, and tooth loss due to severe dental decay along with their orthopantomograms. This represent the first case series of such a rare entity and may be of help in the multidisciplinary management of the disease.

CLINICAL IMPLICATIONS

Complications associated with long term PN such us thrombosis, central catheter-related infections and malnutrition are well described in the literature. Nevertheless, these patients are prone to dental complications especially from infancy through adolescence. These features could be all linked to both malnutrition and demineralization due to PN or the absence of oral food intake.

CONCLUSIONS

We advocate for dental consultations as part of the general workup of these paediatric patients both before starting, whilst on and when off parenteral nutrition to guarantee early detection of teeth abnormalities and correct them in a timely manner.

00100193**Osseointegrated implants to improve prosthetic retention in patient with Parkinson's disease: Case report****C. Mendez, A. Rubio, J. Castillo, P. Barrientos***Santiago, Chile***CASE DESCRIPTION**

A 75-year-old male patient with Parkinson's presented at the Special Care Unit, University of Chile, complaining of feeding difficulty due to poor prosthetic retention. His Parkinson disease was diagnosed 17 years ago. On his first visit he presented severe movement disorders, interfering in his ability to walk and talk, among other functional issues. On examination he was edentulous and had been using bimaxillary total removable prosthesis for 5 months with poor retention.

Considering the functional needs, an implant supported prosthesis was planned. The cone-beam study revealed adequate bone quality and quantity. Two TSV implants (Zimmer®) 10 mm long and 3.7 mm in diameter were installed with a torque of 40 Newton in the mandibular area and connected with healing abutments. The surgery was performed under intravenous sedation and local anaesthesia. Four months later, an implant-assisted lower removable overdenture with Locator® attachment retention system was installed. The patient experienced a positive impact on feeding and oral functions, therefore requesting the same procedure for the upper jaw.

CLINICAL IMPLICATIONS

Dental implants for the rehabilitation of edentulism improves the use of dental prostheses in people with Parkinson's disease. In our patient the Locator® connection system, a resilient attachment system with small height and self-positioning capabilities, facilitating the installation and removal of the

prosthesis by the patient. The patient achieved an adequate handling to install and remove his lower prosthesis, and also improved the stability and retention in comparison with the conventional prosthesis that he previously used.

CONCLUSIONS

Implant-assisted prostheses are an adequate treatment alternative for the rehabilitation of edentulous patients with Parkinson's disease, since they allow adequate stability and retention during function, as well as easy handling by the patient.

00100194**Diode laser frenulotomy and myofunctional trainers: A new clinical approach in down syndrome****J. Venco¹, R. Maggioni², A. Mosca³, M. Maggioni⁴**¹DDS, Marzana Hospital, Verona, Italy²Dental Student, University of Milan, Member of Italian Academy of Laser Dentistry (AIOLA) - Bergamo, Italy³DDS, Member of Italian Academy of Laser Dentistry (AIOLA), Bergamo, Italy⁴DDS, President of Italian Academy of Laser Dentistry (AIOLA), Bergamo, Italy**AIM(S)**

Demonstrate that short lingual frenum laser surgical release must always be associated with myofunctional therapy in Down Syndrome (DS) patients, to be sure of frenum lengthening and of tongue functional release.

METHODS

15 DS patients were selected, aged 6-10, with short lingual frenum and low lingual posture, during 2021, in a public special care dentistry department. We have evaluated the ability of the tongue to reach incisal papilla with wide-open mouth. 5 DS patients had only diode laser frenulotomy, 5 patients had diode laser frenulotomy and myofunctional training with a speech therapist for an hour twice a week, for 2 weeks after surgery, 5 DS patients started using a myofunctional trainer a month before diode laser frenulotomy, for 2 hours during the day and at night. Frenum length has been measured after 1 month, 6 months and 1 year. For each patient we had photos and clinical evaluation of the relation between the wide-open mouth and tongue ability to reach incisal papilla.

RESULTS

2 (40%) patients treated only with surgery showed tongue reaching the incisal papilla, but all 5 (100%) patients trained to use a myofunctional trainer showed a correct tongue elevation. 3 (60%) DS patients treated with surgery and myofunctional exercises with a speech therapist could reach incisal papilla. This is an experimental study, which we will continue, by expanding the sample.

CONCLUSIONS

Lingual low posture is often found in DS, because of obliged oral breathing since birth and oral muscles hypotonia; lack of tongue functional elevation results in a shortened length of the lingual frenum. Laser frenulotomy is the gold standard to treat short lingual frenum in children, for its minimal invasivity, but should be combined with myofunctional therapy for correct healing. Myofunctional approach with a trainer, associated with diode laser frenulotomy, results in best lingual elevation.

00100195**Oral manifestations of graft-versus-host disease (GVHD)****G. Pennacchiotti, C. Arriagada, D. Adorno, S. Kramer***Universidad De Chile, Santiago, Chile***CASE DESCRIPTION**

A 28-year-old patient diagnosed with Hodgkin's lymphoma presented to the Oral Medicine clinic requesting a biopsy of a tongue lesion due to suspicion of squamous cell carcinoma. His Hodgkin's lymphoma had been managed with radiotherapy, chemotherapy and allogeneic bone marrow transplant. After the transplant he presented extensive ulcers on the buccal mucosa, palate, and dorsum of the tongue. He was referred to the Oral Medicine clinic requesting the biopsy of a tongue lesion. Differential diagnosis was established based on clinical history and intraoral examination. Graft-versus-host disease (GVHD) was diagnosed, and treatment protocols implemented. The tongue lesion reverted shortly after beginning the appropriate treatment strategy, without the need of a biopsy.

CLINICAL IMPLICATIONS

GVHD presents a high frequency and variety of oral manifestations. These can be the first sign of this systemic disease. It is important to note, that oral ulcers can have a tremendous variety of causes and pathogenesis, with similar clinical presentation. Therefore, performing a precise differential diagnosis based on the clinical history is very important. The treatment has to have a multidisciplinary approach, where the dentist plays an important role in early detection, treatment and management of oral lesions, in order to avoid further oral dysfunction.

CONCLUSIONS

A timely oral examination, thorough clinical history and an interdisciplinary team approach are essential for the diagnosis, management, and treatment of GVHD, thus improving the quality of life of the patient.

00100197

Health counseling with artificial intelligence-assisted dental monitoring on treatment outcomes in patients with periodontitis: A randomized controlled trial

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AIM(S)

We aimed to examine the effects of health counselling with AI-assisted dental monitoring (DM) tool on periodontal treatment outcomes in patients with periodontitis.

METHODS

Patients who were new diagnosed with periodontitis were recruited and randomly assigned to AI (AI; n = 18), AI & human counselling (AIHC; n = 18), and control (CG; n = 20) groups. All patients received nonsurgical periodontal treatment and oral hygiene instructions, whereas the patients in the AI and AIHC group received an at-home (a) AI-assisted DM tool and (b) AI-assisted DM tool with human counselling over 3 months, respectively. Plaque control record (PCR), plaque index (PI), probing pocket depth (PPD), and clinical attachment loss (CAL) at baseline and follow-up were collected. Generalized Estimating Equations analysed the effects over time.

RESULTS

The AI and AIHC exhibited greater improvement in PCR ($\beta = -18.5$ and -21.1 , effect size (ES) = 0.67 and 1.39), PI ($\beta = -0.5$ and -0.4 , ES = 1.09 and 0.85),

PPD ($\beta = -0.5$ and -0.7 , ES = 0.99 and 1.23) and CAL ($\beta = -0.6$ and -0.7 , ES = 0.92 and 0.95) at the 3-month follow-up than the CG did.

CONCLUSIONS

Applying AI-assisted DM at home can effectively improve the periodontal status after periodontal treatment. Patients with AI-assisted health counselling showed better treatment outcomes than did patients who used AI monitoring alone.

00100198

A mobile AR simulation brushing machine on dental plaque control for elementary school students: A pilot study

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AIM(S)

This pilot study aimed to evaluate the efficacy of a mobile AR simulation brushing machine on dental plaque control and self-efficacy of brushing technique for elementary school students.

METHODS

The study recruited 110 students from third to sixth-grade elementary students in Chia-Yi County, Taiwan. All participants received AR simulation brushing machine intervention once a week at two-week period. Data regarding self-efficacy of brushing and plaque control record (PCR) was collected by a self-administered questionnaire and dental hygiene examination at pre-test and two-week post-test. A paired t-test was used to analyse the intervention effects.

RESULTS

After intervention, the PCR scores had a significant decrease from the pretest score of 92.9(±14.9) to the post-test score of 87.3(±12.1) ($p < .001$). The level of self-efficacy of brushing technique showed significantly improved from the pre-test score of 7.3(±2.4) to the post-test score of 7.9(±2.2) ($p = .044$). Overall, 83.9% of students agreed with 'using AR brushing machine to learn how to brush my teeth was fun.

CONCLUSIONS

A mobile AR simulation brushing machine can improve dental plaque control and self-efficacy of Bass brushing technique.

00100199**Space management in a child with Autism after permanent first molar extraction: A case report****H. Lee , E. Lee***Department of Paediatric Dentistry, Pusan National University, School of Dentistry, Yangsan, Republic of Korea***CASE DESCRIPTION**

This report describes a case of space management in a child with autism. The dental treatment was performed under general anaesthesia, and the immature permanent mandibular right first molar was extracted due to severe dental caries. After 2-year follow-up, the mandibular right second molar erupted in place of the mandibular right first molar and the tooth bud of the mandibular right third molar has been developed favourably.

CLINICAL IMPLICATIONS

Autism is a developmental disorder characterized persistent impairment in reciprocal social interaction and restricted, repetitive patterns of behaviour. Its distinctive behavioural features make it difficult to maintain oral health and to get smooth dental treatments for patients with autism.

Permanent first molars are important for mastication, vertical dimension deeply related to facial growth. Therefore, a decision on the extraction of a permanent first molar should be made prudentially. Clinicians can make a decision when it is expected that the extraction space can be closed spontaneously. It is known that the optimal time for the extraction is when the patient is 8 to 10 years old in normal dental and skeletal growth pattern. This is after eruption of the lateral incisors but before eruption of the second permanent molars in view of tooth development.

CONCLUSIONS

The extraction of a permanent molar may be considered as an alternative treatment plan when there is a compromised molar in children with special needs care. For this reason, clinicians should pay attention to perform the tooth extraction at the most ideal time and the space management in developing dentition after the extraction.

00100200**Dental considerations in a patient with cerebral arteriovenous malformation. A case report****M.S. Ahmad, M.I. Bin-Ismail, N.A. Ramlan, A.F.O. Khan, I.W. Mokhtar***Faculty of Dentistry, Kampus Sungai Buloh Universiti Teknologi Mara, Jalan Hospital Sungai Buloh, Malaysia***CASE DESCRIPTION**

Cerebral arteriovenous malformation (AVM) is a congenital arteriovenous lesion that occurs when there is an abnormal immediate continuity between an artery and vein without a capillary bed. Due to frequent hospitalizations secondary to the diagnosis and its multiple complication, patients tend to develop anxiety and fear towards medical and even dental treatment. This case report discusses the dental considerations required in managing a patient with low tolerance towards invasive dental treatments due to cerebral arteriovenous malformation. A 19-years-old Chinese female with intellectual disability and left hemiparesis secondary to right parietal arteriovenous. She presented with chronic apical periodontitis 11 due to recurrent caries. The patient had aesthetic concerns but was anxious to undergo lengthy dental treatments in clinical settings because of multiple hospitalizations as a child.

CLINICAL IMPLICATIONS

Single visit root canal treatment and comprehensive restorative dental treatment under general anaesthesia was proposed and input from neurologists, anaesthesiologists, endodontists, and special care dentists obtained to determine that this was the best way forward for her. Single visit root canal treatment was done by an endodontist while restorative treatments were done by special care dentist under general anaesthesia with positive outcomes.

CONCLUSIONS

In conclusion, multidisciplinary management of patients with special needs is needed for positive treatment outcomes.

00100201

Gerodontology in the dental school curriculum: A scoping review

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AIM(S)

This scoping review was conducted to identify research in current gerodontology education and provide insight into areas where further research is needed.

METHODS

A scoping review framework was chosen to identify existing gaps and key concepts in the research on current undergraduate gerodontology education. Arksey and O'Malley's framework was used with the qualitative data analysis software NVivo to identify comparable information on geriatric dental education.

RESULTS

Five themes were highlighted in the studies including: 1) gerodontology curriculum content, 2) attitudes, skills and knowledge of undergraduate dental students, 3) didactic teaching, 4) elective and compulsory teaching, and 5) extra-mural learning. The review found large variations in methodologies, presentation of data, and findings. All studies emphasised a need for greater inclusion of gerodontology content in the undergraduate dental curriculum.

CONCLUSIONS

The review found limited research reporting on the educational outcomes of gerodontology in dental curricula with a lack of comprehensive information to inform the gerodontology content in dental schools. This review

has highlighted the need for national and international guidelines to ensure mandatory inclusion of sufficient and specific gerodontology training to prepare graduates for a growing dentate frail and care-dependent population.

00100202

Professional attitudes of dental students toward patients with special care needs

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AIM(S)

Professional accreditation standards in dentistry request to prepare students for the care of patients with special needs. The objective of this study was to evaluate their attitudes and behavioural intentions in dental care for patients with disability.

METHODS

An online questionnaire was proposed to graduate students at the dental school of Lorraine University. The first questions concerned student general perception of disability and special care management in dental practices. Other questions concerned their experience and possible needs of additional training relative to their graduate education.

RESULTS

Despite their education in special dental care, half of the students were uncomfortable in caring for patients with disabilities. The majority of students (85%) estimated that dental treatments of these patients are not currently provided and 37% considered that their management should be attended to specialists. Nevertheless, 91% of the students reported the opportunity of providing care on patients with disabilities, the more often by assisting a dental senior and very few by providing care themselves. On a scale of management difficulties of these patients, considering the value of one as easy to the value of ten as impossible, the mean score reached the value of seven.

Two thirds of the students an additional training, especially in approach and communication was necessary.

CONCLUSIONS

This study has demonstrated 1) the interest of students to learn about providing care for patients with disabilities and 2) the lack of clinical training in their graduate education in order to feel more confident to include these patients in their future professional practice.

00100203

Choosing biomaterials for bruxism patients. In vitro pilot study

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AIM(S)

This study is meant to provide data for selecting the right biomaterials for a clinical study of the survival of fixed prosthesis in bruxism patients. The objective is to compare biaxial flexure resistance of diverse organo-metallic biomaterials, before and after stress loading similar to bruxism, using a qualitative and quantitative analysis.

METHODS

Three composite CAD/CAM blocs Cerasmart (CER), Grandio (GRA), Cerasmart 270 (C270), a polymer-infiltrated composite network bloc Enamic (ENA) and a lithium disilicate ceramic bloc (EMX) were studied. 12x0.2mm discs of each material were prepared. The sample have been soaked in water for 10 days prior to testing. The biaxial flexure resistance (piston on 3 balls, P3B) was measured (n=3). A fatigue test simulating 457 day of bruxism, using variable loads between 20N and 130N, at 37°C and 95% humidity was performed (n=3). The main outcome was the survival of the sample - absence of fracture. After the fatigue test, the surviving samples were studied under optical microscope looking for cracks and fissures. A post-fatigue biaxial flexure test was also performed. The results were analysed with a non-parametric Kruskal-Wallis test, then a Dunn test, p= 0.05. The survival test was analysed with a Log-Rank test.

RESULTS

The biaxial flexure resistance (MPa) of the biomaterials prior to any fatigue was: ENA 152.64 ± 5.64 , CER 227.36 ± 24.87 , GRA 297.21 ± 15.46 , C270 288.80 ± 4.55 and EMX 468.14 ± 13.82 . Only in EMX and C270 groups, all samples have survived the bruxism simulation. A loss of up to 27% (77MPa, C270) of the biaxial flexure resistance was registered after fatigue.

CONCLUSIONS

The studied organo-metallic biomaterials have a different resistance to fatigue simulating bruxism. C270 can be proposed for a clinical study on the survival of fixed prosthesis in bruxism patients, where it should be compared to the disilicate vitro-ceramic, EMX.

00100204

The role of the dentist in rare diseases

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AIM(S)

The authors aim to present a series of rare diseases (RD) observed over the last decade, explaining their characteristics and therapeutic solutions in a high-volume Paediatric Hospitals.

METHODS

A Multicentric study was conducted with record of clinical and radiological findings of oral features in children affected by RD.

RESULTS

Data from 25 consecutive patients are reported.

CONCLUSIONS

A significant number of rare diseases (RD), especially the syndromic forms, are associated with oral manifestations that have a very broad spectrum of severity. Dentistry is almost systematically involved in both diagnostic procedures and specific treatments, which makes it essential to have the presence

and specific expertise of dentists in multidisciplinary groups dealing with rare diseases. Genetic-based RD are divided into syndromic and non-syndromic. The oral manifestations in RD can be part of multiple syndromes or represent complications of the underlying disease (e.g. shape, number and tooth structure anomalies in skeletal and ectodermal dysplasias; periodontitis and caries in DiGeorge, Goldenhar, Nicolaides-Baraitser syndromes). The oral manifestations can also be associated with undesirable effects of therapies (pigmentation and enamel abnormalities in Alagille syndrome, metabolic diseases and solid organ transplantation). Data are confirmed by the presented retrospective multicentric survey.

00100206

What do mothers want?

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AIM(S)

Motherhood is a lifelong task. As they spent their times for children, they also have expectations from their children and life. Mothers of disabled children have to provide special care to their children while they are spending their lives for them. The aim of the study is to examine the effectiveness of oral-dental health services for children with disabilities and compare the expectations and wishes of mothers of children with disabilities and healthy children.

METHODS

Totally 66 mothers (n=27 have disabled children and n=37 have healthy) conducted in the study. All data were collected with a questionnaire. After getting demographic information, oral-dental health needs, expectations and satisfaction related with dental services were asked to mothers. As a last question fears and best wishes of them were noted. All mothers divided into two groups as group1 (mothers of children with disability) and group 2 (mothers of healthy children). All data were recorded and statistically analysed with IBM SPSS 20 program.

RESULTS

The group 1 consanguineous marriage ratio was 20 % and group 2 was 18.91%. The mean age of disabled children was 23.38 ± 9.51 years. Only 6,89% of Group 1 mothers and 24,37% of Group 2 mothers make their children's oral-dental care at home. There is no statistical difference between groups. Both of the groups are satisfied from the given dental care at hospitals. Although the most feared thing for both groups was dying, Group1 mothers feared mostly from

dying before their children. While Group 1 was expecting a miracle(58.92%), Group 2 mothers were expecting healthy(45.16%) and wealthy life(32.25%).

CONCLUSIONS

Fear from death was very common but timing shudders mothers of disabled children. Oral-dental care of disabled persons cannot be provided at home effectively. For-that-reason oral-dental care services for disabled individuals should be increased.

00100207

Removable Prosthodontics for microstomia patients: The hybrid workflow. Case series

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CASE DESCRIPTION

Precluding hygiene, diagnosis and treatment, microstomia is a great challenge for both the patient and the clinician. However, finding a functional and aesthetic solution for the edentulous patients suffering from a buccal aperture limitation is paramount.

This case series describes the use of a hybrid workflow where traditional techniques complete the digital workflow, in the fabrication of complete or partial removable prosthesis for patients suffering from microstomia. A series of 3 microstomia cases were treated in the Prosthodontics Department of the Hopitaux Universitaires de Strasbourg, France.

CLINICAL IMPLICATIONS

For the partially edentulous patient, the metal frame was laser-sintered using the intra-oral scanned impression. A selective tissue placement impression technique was then used to make the final impression of the soft tissue in the edentulous zone. The dimensions of the tray attached to the frame were much less important than those of a conventional tray, allowing insertion into the patient's mouth, despite the small aperture. The traditional workflow was then resumed and the final removable prosthesis was fabricated.

For the completely edentulous patients, no stock tray fitted into the patients' mouth. After a preliminary intra-oral scanning, one-piece impression-trays were printed. Then, a secondary functional moulded impression was performed. The accuracy of the intra-oral scan allowed the impression of a very accurate tray,

thus helping the insertion into the patients' mouth, despite the limited mouth opening. The conventional workflow was then resumed and complete dentures were fabricated.

ACKNOWLEDGEMENTS

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CONCLUSIONS

The hybrid workflow can be used safely in patients with microstomia, facilitating the clinical procedures and shortening the treatment time. The hybrid workflow compensates the shortcomings of the digital flow and makes traditional techniques more straightforward.

00100211

Robotic hand for Perio-Implant home maintenance in patient with Sclerodactyly: A case proposal

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CASE DESCRIPTION

The purpose of this case proposal is to explore applications of Bio-Robotics for the improvement of the systemic conditions of an Implant-prosthetic patient affected by Sclerodactyly. The patient with a multifactorial general history of Systemic Scleroderma, Von Willerbrand's disease, Raynold's phenomenon and Barrett's esophagus; has been developing upper limb sclerodactyly for the past 6 years. Locally she is affected by the loss of multiple teeth and a Periodontitis Stage IV Grade C with diffused mobility to the residual teeth and difficulties in the daily oral hygiene practices. Through a proactive periodontal therapy course with the One stage Full-Mouth Disinfection technique, the patient is prepared and subsequently subjected to implant-prosthetic rehabilitation of both arches. Her specific condition of sclerodactyly in the upper terminal limbs prevents her from proper oral hygiene home procedures and commits her to sessions of plaque control and periodontal index detection on a monthly basis. The robotic hand, stabilized by an osteointegrated implantology technique, through electrodes inserted in the residual muscles allows to extrapolate a greater amount of information for a control of the finer sensory perceptions such as the manoeuvres of using oral hygiene devices.

CLINICAL IMPLICATIONS

Normal hand prostheses have limited sensory feedback, in fact they do not provide tactile perceptions in correlation with the surrounding environment, forcing you to rely only on sight while using the prosthesis. Instead through Biorobotic hands, thanks to the electrodes implanted in the nerves, the patient will be able to recover the lost tactile sensations through sensors that guide the stimulation of the nerve. The restoration, albeit partial, of the finer perceptions will allow the use of aids for daily oral hygiene, favouring the rebalancing of the oral ecosystem and consequently improving its systemic health.

CONCLUSIONS

The aim of the work is to present new applications of robotic technologies correlating them with the improvement of the oral health and lifestyle of patients.

00100212

Implant rehabilitation or not for patients with cerebral palsy? A case report

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CASE DESCRIPTION

A 48-year-old patient with cerebral palsy and cognitive impairment attended the Special Care Dentistry Clinic, Universidad de Chile, with her mother. She had not been able to have any previous conventional dental care due to severe movement disorder. Treatment had been previously provided under general anaesthesia, where the treatment of choice had been dental extractions. The mother's main concern was to improve her daughter masticatory function.

Oral examination revealed loss of multiple teeth and severe periodontitis. First stage treatment, using intravenous deep sedation, included root scaling and extraction of teeth with unfavourable prognosis. A week after the procedure the patient fell and suffered an avulsion of the last central incisor. An implant-based rehabilitation was discussed with the patient and her mother and considered as the best solution. Six dental implants (TSV, Zimmer®) were placed under intravenous sedation. The time to osseointegration and subsequent implant loading was six months. The treatment success at the moment is based on the absence of clinical symptoms and implant mobility and frequent check-ups.

CLINICAL IMPLICATIONS

Implant based rehabilitation was deemed as the best treatment alternative for this patient, as her severe movement disorder hindered a removable rehabilitation. However, oral hygiene constitutes a major challenge to achieve success in the long term. A major aim in this case has been the education of the patient and her caregiver, teaching different technical aids to improve and maintain adequate oral hygiene.

CONCLUSIONS

Oral health is an integral part of general health, and it must be re-established when it is altered in order to provide an increase in quality of life. It is necessary to inform caregivers about the relevance of performing good oral hygiene as well as frequent follow-ups. Implant rehabilitation can be considered a suitable option in people with disabilities as bone quality and quantity remains unaltered.

00100213

Orthodontic and restorative treatment of a patient with alveolar cleft and oronasal fistula

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CASE DESCRIPTION

An 8-year-old non-syndromic male cleft patient visited our practice for a consultation. Dissatisfaction with his smile aesthetics was his chief complaint. The patient presented with a cleft alveolus and an oronasal fistula, vertical excess, maxillary anterior-posterior deficiency, class I malocclusion, severe incisor rotations and crowding, anterior and posterior crossbites, and an increased anterior Bolton index. First phase of orthodontic treatment was completed in 12 months and consisted of maxillary expansion and alignment of the anterior teeth. The result was retained with a transpalatal arch and a bonded wire on the four maxillary incisors. At the age of 11 years and 8 months a second phase of treatment with fixed orthodontic appliances in both jaws was started. We used class III orthodontic elastics to fine-tune the occlusion and the maxillary incisors were enlarged with composite restorations. At the end of this second phase (duration 26 months) we bonded retainer wires from bicuspid to bicuspid in both arches and positioned a transpalatal arch to retain the transverse dimension. No secondary alveolar cleft repair was done during his orthodontic treatment. We obtained a bilateral class I molar relationship, cantered midlines and a complete overjet and overbite correction.

CLINICAL IMPLICATIONS

Cleft lip is the most common craniofacial condition. Two third of these patients also present with alveolar clefts. This case showed how relatively

simple non-surgical orthodontics and restorative dentistry can address patient important aesthetic and functional concerns.

CONCLUSIONS

Crooked anterior teeth draw attention in cleft patients and are often the main reason for seeking orthodontic treatment. Here we report on a relatively simple orthodontic and restorative approach to address this problem. The external validity of this and alternative interventions, including their beneficial and adverse effects should be carefully weighed in consensus meetings with the patient and a multi-disciplinary cleft team.

00100214

Conscious sedation in dentistry: Knowledge, awareness and exposure of Malaysian dentists

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AIM(S)

There is dearth evidence on the knowledge, awareness and exposure of conscious sedation among Malaysian dentists. This study aims to assess Malaysian dentists' knowledge, awareness and types of exposure that they have received on conscious sedation in dental settings.

METHODS

An online survey was conducted using Qualtrics software to 385 registered Malaysian dentists with only 166 completed the survey (60.5% response rate). Data was analysed using SPSS IBM version 26.0.

RESULTS

Most of the respondents (n=147) were familiar with the term conscious sedation (87%) and majority had exposure to inhalation sedation using nitrous oxide (52.5%) during their undergraduate training (46.8%). However, less than one third of respondents offered conscious sedation in their current workplace. Nevertheless, the majority perceived the need for conscious sedation to be offered to their patients (82.9%).

CONCLUSIONS

Majority of Malaysian dentists knew and were aware about conscious sedation in dentistry. Yet they have limited practical training on this. Most of them were interested in receiving further training in conscious sedation and expecting to offer the service in the future for their patients.

00100215

Preliminary care for babies with cleft lip and palate using naso alveolar moulding

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CASE DESCRIPTION

The most common congenital craniofacial defect is cleft lip and/or palate (CLP). Due to the gap in the roof of their mouth, many babies with cleft palates have difficulty breastfeeding which lead to poor growth. The objective of this case report is to highlight the preliminary oral care for babies with cleft lip and palate as an early intervention of a disorder. A 2-weeks-old infant demonstrated CLP with difficulty in breastfeeding, frequent vomit, and chokes which leading to low weight gained. Based on the characteristic appearance a diagnosis of Class III Veau was made. Treatment was initiated with impression, cast, and construction of obturator as feeding appliance made of self-cured acrylic. Lip strap was placed to align both the bones and soft tissues. A nasal stent made of 19-gauge stainless steel wire was placed into the appliance at a later visit. The patient was recalled every 2–3 weeks, and a series of weight measurement were taken, as well as changes to the appliance for desired effects on the lip, alveolus, and nose. The patient can adapt well to the feeding appliance and consistent weight gain was demonstrated at each visit until it's time for lip repair.

CLINICAL IMPLICATIONS

For patients with oronasal anomalies, feeding appliance helps in the preservation of nutrition and the speedy attainment of surgery-ready conditions. Additional nasal stent is used to mend flexible nasal cartilage, reducing the number of surgical operations needed to correct oronasal descending anomalies.

Naso-alveolar moulding (NAM) is the first step in successful nutrition improvement and preparing a CLP infant for surgery.

CONCLUSIONS

We concluded that NAM appliance result in significant improvements in nasal morphology and improved weight gain for CLP infant as a preliminary care.

00100216

Clinical performance of high viscosity glass ionomer compared to amalgam restorations in patients with disabilities: 26-month follow up. A randomized controlled trial

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AIM(S)

Dental care for non-cooperative people with disabilities is challenging, as they require a variety of behavioural support techniques together with restorative techniques and biomaterials that allow to complete treatments in short periods of time. High viscosity glass ionomer cement (HVGIC) could be an alternative to amalgam restorations in people with disabilities (PWD). To assess the clinical performance of high viscosity glass ionomer cement compared to amalgam restorations on occlusal cavitated caries lesions in non-cooperative patients with disability after 26 months.

METHODS

Two-arm multicentre randomized clinical trial. A total of 77 PwD with two occlusal molar caries were included. One tooth was restored with dental amalgam (DA) (group A) and the other with Equia FIL GC HVGIC (group B) in a split mouth design (total 154 restorations). After 26 months, the restorations were evaluated according to modified Ryge criteria on the parameters: marginal adaptation, anatomy, surface roughness, brightness, marginal staining, and secondary caries. Comparison of each parameter on both materials was performed with Mann-Whitney U test.

RESULTS

63 patients with 126 restorations (63 DA, 63 HVGIC) were evaluated. Drop out: 3 patients left the school and 1 patient died. Ten patients failed to attend the assessment due to COVID 19 pandemic. Eight restorations in group A and two in group B had one or more parameters rated Charlie. Two restorations in each group developed caries adjacent to the restoration (Charlie). Only the "Brightness" parameter showed differences between both groups ($p=0.001$): group A showed significantly higher number of restorations evaluated Bravo, while group B showed a high number of Alpha restorations. There were no differences in any of the other parameters evaluated ($p>0.05$).

CONCLUSIONS

High viscosity glass ionomer restorations showed a similar behaviour compared to amalgam restorations after 26 months, with the former performing better in the "Brightness" parameter.

00100217

Various attempts to manage Lesch-Nyhan Syndrome(LNS) patients : Case report

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CASE DESCRIPTION

Case1 : This case describes 31-month-old male patient who visited with the chief complaints of "Keeping biting lower lip and tongue". Through trial and error, the removable mouth guard of the upper jaw and the semi-removable lip bumper, that obtains anchorage from a bracket welded to a band, have been installed in the lower jaw. He still visits for regular check-up without extraction of teeth so far.

Case2 : This case describes 15-months-old male patient who visited the hospital with the aim of fabricating an appliance in preparation of self-mutilating behaviour. We created a model for patient's analysis through intraoral 3D scan. With the efforts of the patient's father, a customized appliance was devised. Until fully primary second molars are erupted, we expect this appliance will prevent the self-mutilating behaviour.

CLINICAL IMPLICATIONS

After the mouth guard of the upper jaw and the lip bumper of the lower jaw are used, the patient's self-mutilating behaviour is prevented, and food is edible. Using those appliances is considered the ideal maintenance form. Despite of the successful conservative approach, it is necessary to keep an eye on the phenomenon of lingual tilting, distal movement of anchorage teeth, the side effects that can occur from the long-term use of lip bumper. Variable attentions to developing customized appliances for patients through 3D scanners have become possible.

CONCLUSIONS

Although dental extraction is a reliable means for definitive control of self-mutilating behaviour, many doctors and patient's parents are reluctant to extract their teeth, because of their aesthetic appearance and the point that self-mutilating behaviour begins again when permanent teeth are erupted. There is still no gold standard for dental treatment in LNS patients. Therefore, there is a need for developing variable approaches to be suitable minimize side effects.

00100218**Statistical analysis of dental treatment under general anaesthesia performed at the department of advanced general dentistry from March 2017 to September 2019****S.W. Lee, K.D. Kim, W. Park, N.S. Pang, S.J. Yang, J.E. Cheong***Department of Advanced General Dentistry, Yonsei University, College of Dentistry, Seoul, Republic of Korea***AIM(S)**

This study analyses the characteristics of patients who received dental treatment under general anaesthesia(G/A) performed at the Department of Advanced General Dentistry(AGD), College of Dentistry, Yonsei University, and the dental treatment they mainly received. through this, we intend to develop a comprehensive dental treatment protocol of AGD and provide basic data for follow-up research and related policy proposals.

METHODS

From March 1, 2017, to September 31, 2021, dental treatment records, anaesthesia records, and radiographic images of patients who received dental treatment under G/A at the Department of Advanced General Dentistry, College of Dentistry, Yonsei University, were thoroughly investigated. From these records, the demographic characteristics, medical and dental characteristics of the patients, and the degree of their cooperation in treatment procedures were evaluated.

RESULTS

A total of 157 dental treatments were performed under G/A for 102 patients. The average number of G/A per patient was 1.54, and the most age group of the patients was 30-39 years old. The most common cause of receiving

dental treatment under G/A was congenital/acquired physical disability, which made it impossible to cooperate with their treatment procedures (22%). The most common reasons for non-disabled people receiving dental treatment under G/A were dental phobia (9%). The most frequently performed treatment were periodontal treatment (59%), tooth extraction (54%), and direct/indirect restoration (37%) in that order. Of 157 G/A cases, two or more different dental treatment fields were performed in 116 G/A cases (74%).

CONCLUSIONS

Because of the characteristics of the patients requiring dental treatment under G/A, integrated treatment plan covering various dental fields is essential for them. Therefore, the role of AGD specialists who has both the ability to establish a comprehensive dental treatment plan and treatment ability is very important.

00100219

Oral health beliefs, behaviours & attitudes toward dentistry among young adults with Sickle Cell Diseases in Ireland

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AIM(S)

The prevalence of Sickle Cell Disease (SkCD) in Ireland has increased. To date, 238 young adults with SkCD have presented to a recently commissioned adult specialist service located within a national care center. The aim of this study is to describe the oral health knowledge, attitudes, and behaviours of these young adults with SkCD attending this service over one calendar year, to inform the design of a holistic oral healthcare model.

METHODS

A cross-sectional survey is underway among adults with SkCD attending this service (total population sampling). Participants self-complete the survey while undergoing transfusion therapy. Oral health knowledge, attitude and behaviours are assessed using standardized measures (Xing et al., 2020). Statistical analyses are descriptive.

RESULTS

Preliminary results, at four months, indicate that to date 55 of 57 invitees have participated (RR=96.5%), of whom 62%(n=34) were female; 82%(n= 45) described themselves as Black or Black Irish/African and 11%(n=6) were of Asian origin. The mean age was 33yrs(SD=11yrs). Most (90%, n= 50) confirmed that oral health was not checked as part of their annual health screening by

the SkCD team. Dental attendance patterns were low with 54.5%(n=30/55) not attending within the past five years and 41.8%(n=23/55) saying they visit the dentist only if they have trouble. The most cited barrier (45% n=25) was the cost of dental care. One lone participant reported being refused dental treatment because of their condition. Thirteen (24%) were neutral/unsure as to whether SkCD had a negative impact on oral health.

CONCLUSIONS

These preliminary data suggest that dental attendance is infrequent and symptom-driven amongst young adults with SkCD in Ireland, with the cost of care presenting a significant barrier. The study continues and the 12 months' results will inform the design of a holistic adult comprehensive care model and multi-disciplinary oral health promotion initiatives.

00100220

Association between the oral diadochokinesis (ODK) rate and chewing time for different food textures in the senior adult community

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AIM(S)

The tongue-lip motor function is associated with well chewing function. The aim of this study is to investigate the oral function using two kinds of the standardized chicken textures for the older adults with different ODK rate dwelling in the community.

METHODS

In this cross-sectional study, We convenience sampling one senior citizen activity center in Kaohsiung city as a base to recruit the senior dwellers (≥ 65) who can go there by themselves. Every participant was arranged to go to ODK rate test and to eat two kinds of chicken breast textures (regular vs. mince & moist level) and at the same time, the chewing time was record. The preparation procedure was standardized for the two kinds of textures. The t-test and paired t-test were used in this study analysis.

RESULTS

The participants comprised 54 women (83.1%) and 11 men and range from 65 to 88 years. Participants were grouped into well or poor tongue-lip motor by the median of ODK rate in Pa, Ta and Ka-sound, respectively. We found that the no significantly chewing time in two tongue-lip motor groups whatever the chicken texture in the regular or minced and moist level. More, well ODK

rate group in the Pa-sound, the elders spent 1.12 sec more (SE: 0.40) while they chewing chicken breast texture in regular compared with the minced and moist level. The same finding also in the well ODK rate group in Ta-sound and Ka-sound. The elders with poor ODK rate group by the Pa-sound, the time spending variance was not significantly on the different chicken breast textures.

CONCLUSIONS

Although it is not inevitable association that the older adults with poor tongue-lip motor had to spending longer time to chew in the same texture, the significantly less chewing time spending in minced & moist level than regular level chicken.

00100221

Oral health and dental care in adults with moderate to severe autism spectrum disorders

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AIM(S)

If dental health and care training are well-studied in children with autism spectrum disorder (ASD), very few data are available on adults and even less in middle-age. A retrospective study was undertaken to evaluate the oral health in an adult population of patients with ASD and expertise their possible care in a dental chair.

METHODS

Thirty-six patients, from 18 to 57 years of age (ratio male/female of 2.6), living in disability care homes, were included in this study performed in our dental service of specialized care. All the data were collected in patient files over a 4-year period. For each patient the following were assessed: 1) the social and behavioural disorders, 2) the medical status, oral health and dental hygiene and, 3) the dental care management. Data were analysed and quantitative statistics were used to test factors susceptible to be pertinent in the choice of care option.

RESULTS

A noise hypersensitivity, more frequent in older patients (39%) and intensive stereotypies (70%), were the main autistic trait observed. Verbal communication was absent for 90% of the patients. The dental health was relatively equivalent to the normal adult population with 83% of patients having more than 20 healthy teeth. However, a bad gingival state and poor tooth hygiene

was seen in two thirds of the population and epilepsy, present in one third of our population worsened the dental state significantly. Noise hypersensitivity and lack of initial cooperation did not obviously restrict normal care management. Conscious sedation was needed for 33% of the procedures general anaesthesia was only required partially for 47% of the patients, more frequently for lengthy treatments such as fixed denture preparation.

CONCLUSIONS

Even with severe troubles, treating adult ASD patients in dental clinics must be considered before systematically planning general anaesthesia.

00100222

Home dental care as a safe alternative for frail elderly patients during the pandemic of COVID-19 in Brazil

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CASE DESCRIPTION

During the pandemic, elderly people had almost every treatment suspended because they were in the highest risk group. Since the oral health care was also suspended, patients with ongoing dental demands were left unattended, oral health conditions during this period declined considerably. Dental care, in the context of the pandemic, posed a potential risk of infection due to the proximity of the patient's airway to dental personnel and the generation of aerosols during clinical procedures. Caring for an older person with dementia is challenging enough without a global health crisis. Even without this pandemic, home dental care, is a preferable choice for this group considering safety, comfort, traveling and all other needs due to their condition. The following is a presentation of how we dealt with these conditions in Brazil and the criteria used for selection of the patients with immediate needs.

CLINICAL IMPLICATIONS

The orientation of all organizations during the Pandemic was to treat emergencies only. In patients with a decreased level of consciousness, pain of oral origin may be neglected, either because of their inability to report the symptom or because the oral cavity was not examined by the dentist. Videoconferences were used to first trial the real needs of the patients. Families and caregivers were orientated how to provide us good information from the patients. Photos and videos helped in this issue.

CONCLUSIONS

The use of Teledentistry for education, consultation, and trial was the first step to providing home dental care for this group of individuals, based on minimal intervention dentistry, might be the best approach for them.

00100223**From classroom to online disability equality training: Dental students' feedback and satisfaction****M. Mohamed Rohani, N.A. Mohd Nor, L.A. Shoaib***Faculty of Dentistry, Universiti Malaya, Kuala Lumpur, Malaysia***AIM(S)**

To assess students' feedback and satisfaction on the Online Disability Equality Training (e-DET) module in Special Care Dentistry (SCD) education at a Malaysian dental school.

METHODS

The face-to-face training replaced the e-DET due to the COVID-19 pandemic. It was conducted for two consecutive years (e-DET 1.0 in 2021; e-DET 2.0 in 2022) among two different batches (N=101) of Universiti Malaya third-year dental students. Each e-DET was conducted in three different sessions, moderated by a certified trainer and facilitators. Multiple online platforms were used to maintain interactive engagement, including Teams and Zoom for online interactions, Pear Deck for student response systems, and YouTube. Activities such as disability awareness seminar, reflective session, live interview of persons with disabilities (PWD), e-DET video campaign presentations, sign-language and online disability simulation exercises were incorporated. At the end of e-DET, students were invited to answer online questionnaires comprising thirty questions using five-point Likert scales, and three open-ended questions on students' feedback and suggestions. Descriptive data was analysed using Microsoft Excel. Ethics approval was granted by the FDUM Ethics Committee.

RESULTS

In total, 82 (81.2%) students completed the questionnaire. Overall the students were satisfied with the content and organization of e-DET. Majority of the students agreed that it has improved their personal skills (communication skills, willingness to treat and self-learning ability), and professionalism (punctuality and teamwork). The activities were reported to be engaging. Interaction with PWD and learning sign language were found to benefit the students the most, whilst the video campaign presentations were least preferred by them. Others recommended hybrid sessions for future training.

CONCLUSIONS

Positive responses were reflected in terms students' feedback and satisfaction on e-DET module. e-DET is recommended in SCD education to improve their awareness towards disability and prepare them in managing patients in the dental practice.

00100224

Effects of child abuse and neglect on oral hygiene and nutrition in North Indian school students: A cohort study

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AIM(S)

WHO defines child maltreatment as “abuse and neglect that occurs to children under 18 years of age. It includes all types of physical and emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power.” It is a social stigma to discuss the problem and needs to be addressed. This aim of this study is to explore the relationship between dental hygiene and child abuse, malnutrition, and overall development of children.

METHODS

This cross-sectional study included 900 students aged 5-15yrs from Government schools in Lucknow district of Uttar Pradesh. Over the period of one year from 18th Jan 2019 to 18th Jan 2020 nutrition status along with signs of abuse/neglect was observed to screen the students.

RESULTS

Dental hygiene and nutrition level of 76% (260) of the students who suffered some or the other form of abuse had poor dental hygiene and 69% (236) of such students were mild to moderate malnourished (74.2% male and 25.8% female). When compared to the students who suffered abuse, cases of dental neglect in other students were observed to be 65% (362) of which 57.9% (323) students were moderately malnourished (70.98% male and 29.1% female).

CONCLUSIONS

A significant relationship was established between dental neglect and hygiene, child abuse and malnutrition. People should normalize discussion upon this, and dentists should be suspicious of injuries and attentive to perceive environment surrounding children and notify authorities regarding, discrepancy found.

00100225

Transdisciplinary care approach: The magic alliance of speech and language therapists facilitating behavioural support of patients with autism in the dental setting

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CASE DESCRIPTION

The dental setting is a world of sensorial stimuli. People living with autism may have unique reaction to these different environmental challenges. Speech and language therapists (SLT) have specific abilities to manage these situations, making the transdisciplinary teamwork in the dental setting an essential alliance. Every person with autism spectrum disorder (ASD) has their own reaction to sensory stimulation. In this case description the management of three male patients with ASD and history of non-cooperative dental behaviour will be presented. The main strategies implemented were in-depth interview, therapeutic alliance and systematic desensitisation to each stimulus starting with those in the waiting room. All three patients received individualized behavioural support techniques guided by SLT at the Special Care Dentistry Unit, Faculty of dentistry, University of Chile. After an average of 3 clinical sessions with the SLT all three patients were able to receive routine dental care in the clinical setting, without the need of any pharmacological or restrictive behavioural management technique. Dental treatment provided included tooth cleaning, fluoride varnish, atraumatic restorative treatment (ART) and orthodontic treatment.

CLINICAL IMPLICATIONS

Including SLTs in the dental setting allowed to provide a safe and high-quality dental care to patients with ASD in a less restrictive manner. This increases

access to dental care, generating a more inclusive dental service based on respecting each individuals' human rights.

CONCLUSIONS

Transdisciplinary care including SLTs in the dental setting allows to generate individualized treatment strategies, improves dental behaviour, allows to provide a wider scope of dental treatments and respects patients human rights.

00100226

Utilization of additional fee for special care dentistry in Belgium

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AIM(S)

The objective is to examine trends in the utilization of additional fee for conservative treatments and extractions among individuals with disability in Belgium and investigate the provision of sufficient services and equitable access to special oral care.

METHODS

The reimbursement of services in Belgium are defined by codes. The additional fee for special care is fully covered by the dental insurance. The data of the utilization of the codes and the expenditures from 2015 to 2020 were provided from the National Institute For Health And Disability Insurance (NIHDI). The data of the practice variation in 2017 were standardised per year on basis of age, gender, and reimbursement scheme per area, provinces and administrative districts. The geographical variations were analysed using mapping.

RESULTS

Looking at the expenditures, a regularly growth of utilization of the additional fee was noted. The practice variation study reveals that only 14% dentists provided special care treatments (conservative and extractions). The use of

the supplement code was recorded significantly more often among persons aged between 75 and 90 years. An unwarranted geographical variation was noted, Special care services are significantly more provided in Flanders whereas in Brussels and Wallonia.

CONCLUSION

The special care supplement code was introduced as an incentive for oral special care that takes longer because of a disability, to enhance the accessibility to care for this vulnerable group. This analysis shows the necessity of focussing the education of the dental providers in specific regions for special care. and to widespread the use of the special care services not only for elderly people but also for the other age groups.

00100227

Use of a social-emotional learning tool in special care dental education

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AIM(S)

Evaluation of the student experience in special care dentistry using a social emotional learning tool.

METHODS

Third and fourth-year dental students (n=150) rotate through the Advanced Care Clinic where they treat patients with developmental disabilities, intellectual disabilities, those who are medically complex, and the vulnerable elderly. In July of 2020, the special care faculty implemented the "Rose, Bud, Thorn" exercise as an "end-of-day" reflective tool so students could share their clinical experiences in special care dentistry. This interactive exercise promotes social-emotional learning (SEL) skills such as empathy, social awareness, mindfulness, and gratitude. A "rose" reflection describes something that went well for the student. A "bud" reflection describes something that may need improvement or something they look forward to. The "thorn" reflection describes what didn't go so well or a challenge the student faced. In addition to sharing as a group, a scannable QR code was created for students to write their "Rose, Bud, Thorn" at the end of each day which populates a Google spreadsheet. Student reflection data was collected for qualitative evaluation and computer assisted qualitative data analysis software (CAQDAS) was used to trend the data. This exercise is easily adapted to all areas of clinical health care education and allows students to reflect on their experiences treating this special patient population.

RESULTS

Preliminary qualitative analysis revealed several trends. Whole person health care, seeing the “big picture”, the importance of taking a thorough patient history, patient behaviour management, teamwork and learning soft skills were the most common themes.

CONCLUSIONS

Social-emotional learning tools may support the development of soft skills such as empathy, social awareness, and mindfulness. In addition, they can be useful in the assessment of these skills in dental students following exposure to patients with special healthcare needs.

00100228

Association between radiographic phenotype and Epidermolysis subtype diagnosed genetically

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AIM(S)

Epidermolysis Bullosa (EB) is a heterogeneous group of diseases of genetic origin with the clinic and genetic diverse expressions, characterized by manifestations associated with loss of the skin resistance to mechanical stress. The aim of this study is to determine the relationship between radiographic oral characteristics and the EB subtype in Digital panoramic radiographs. It is of great relevance to establishing evidence-based care practices and treatment guidelines for patients of all ages. As a starting point, it is important to have a thorough knowledge of the oral features that can be found in each of the main EB subtypes.

METHODS

Digital panoramic radiographs of 65 patients with EB taken between the years 2007 and 2021 were analysed. Prevalence and severity of caries, prevalence of enamel structural anomalies, number anomalies, position and eruption anomalies, and prevalence of marginal bone resorption were analysed. Statistical analysis included Pearson's chi² for categorical variables and ANOVA test for quantitative variables.

RESULTS

The prevalence of caries varied from 60% to 100% in the different subtypes of EB, without a significant difference. The severity of caries, however, was significantly higher in RDEB with a median of 12. The prevalence of structural enamel anomalies was significantly higher in patients with EBJ (100%).

The prevalence of number, position and eruption anomalies and marginal bone resorption was highly variable, without significant differences.

CONCLUSIONS

The association of radiographic oral characteristics and the EB subtype was verified. Patients with RDEB had greater severity of caries and patients with EBJ had a higher prevalence of structural enamel abnormalities.

00100229

Special care dentistry and dental education in Canada – using a functional model to integrate existing curricula to local competency matrices

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AIM(S)

Competence has been defined as complex behaviour or ability essential for the general dentist to begin independent, unsupervised practice. Disability can be viewed through both the medical and the functional model. The medical model suggests that disability is a consequence of a health condition, disease, or trauma; while the functional model recognizes that disability is caused by physical, medical or cognitive defects, but defines disability as a limitation of function or the ability to perform functional activities. This presentation seeks to map the map the IADH curriculum to the competencies laid out by local regulators and explore how this can improve access to dental care for individuals with special healthcare needs in Canada.

METHODS

The existing dental competency framework of the Association of Faculties of Dentistry (ACFD) for Canada lists five domains of competency for the graduating dentist; . These are 1) Patient Centered Care, 2) Professionalism, 3) Communication and Collaboration, 4) Practice and Information Management, and 5) Health Promotion. The competencies listed out in the ACFD were mapped to the recommendations of the iADH undergraduate curriculum in Special Care Dentistry.

RESULTS

The curriculum outlined by the International Association for Disability and Oral Health (iADH) was compatible with the ACFD matrix in each of the five domains. Although the ACFD document does not specifically mention the words "disability" or "special healthcare needs", the matrix would allow for the incorporation of the ACFD competencies into a framework of Special Care Dentistry education in Canada based on the functional model of disability.

CONCLUSIONS

The iADH undergraduate curriculum and a functional model of disability education are compatible with the ACFD competency framework.

00100230

Epidemiologic description of the ocular prosthetics user's population originated during the civil unrest in Chile 2019

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AIM(S)

During the civil unrest in Chile in 2019 an epidemic of ocular trauma occurred as a result of the use of kinetic impact projectiles (KIP) by the national police. Multiple cases of ocular trauma, varying from partial vision loss to total vision loss, with eye loss, facial fractures, skin laceration, psychosocial damage, and the fracture of these patients' lives. The eye loss population highlights because of its high incidence compared to statistics in similar events. Because of this very specific context, we made an epidemiologic description of this population. This study aimed to present the epidemiologic description of the ocular prosthetics user's population affected during the civil unrest in Chile in 2019.

METHODS

We have included all patients treated with ocular prosthetics after the medical ophthalmologic treatment. We considered for the evaluation, sex, age, geographic location, compromised eye, ocular presentation (Evisceration, enucleation, or ptisis bulbi), primary and secondary diagnosis, surgical complications, and cause of trauma.

RESULTS

A total of 65 patients were treated because of eye loss during the civil unrest in 2019. All of them with indication of ocular prosthetics. Our results showed a population of mostly male patients, median age of 28 years old, mostly

from the Metropolitan region. Most common eye loss was the right eye, and the main diagnostics was open-globe injury. The most common type of presentation is the evisceration eye. The most common complication is the palpebral ptosis. The most common cause of eye loss was damage by KIP.

CONCLUSIONS

This is one of the largest case series of ocular prosthetics user's population in the international literature. It shows a substantial difference between the regular trauma eye loss and compared with the epidemics of similar reports from other countries. This information could be very useful for ocular rehabilitation teams in possible future situations with KIP.

00100231**Therapeutic approaches for treating microstomia in severe generalized recessive Dystrophic Epidermolysis Bullosa, A multicenter randomized control trial****S. Krämer¹, C. Serradilla¹, M. Baeza¹, S. Porter²**¹Special Care Dentistry Unit, University of Chile, Santiago, Chile²Ucl Eastman Dental Institute, London, United Kingdom**AIM(S)**

To evaluate and compare the effect of two technical aids in increasing the maximal mouth opening in patients with severe recessive dystrophic epidermolysis bullosa.

METHODS

Prospective, Blind, Randomized Clinical Trial. The clinical stage was conducted between July 2008 and July 2009 at Great Ormond Street Hospital for Children, London, UK and from 2012 to 2022 at the Special Care Dentistry Unit, University of Chile. Patients aged 4 to 18 diagnosed with severe generalized Recessive Dystrophic Epidermolysis Bullosa were invited to participate. After obtaining consent patients were randomly allocated to: Group A received a Mouth Trainer and were asked to perform exercises for 5 minutes 3 sessions a day. Group B received a Threaded Acrylic Cone and were asked to perform 3 sessions of exercises a day, performing 10 maximal stretching maintaining 30 seconds. Main outcome measure: Maximal inter-incisal distance in millimeters after 12 weeks. Randomization was computer-generated and concealed in opaque sequentially numbered envelopes. Researchers were blind for the initial measurement of each patient.

RESULTS

A total of 24 patients were enrolled during the clinical period fulfilling the research design, 12 in each group. Two patients of each group dropped out the study. Data of all other 20 patients is included in the analysis. Outcome: Group A: increase in mouth opening: 1.89mm and Group B: increase in 1.43mm. No significant difference was found.

CONCLUSIONS

Patients in both groups improved mouth opening after 12 weeks. There was no significant difference when comparing both devices.

00100232

Comprehensive orthodontic treatment in patient with cognitive disability

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CASE DESCRIPTION

A 14-year-old female patient with a diagnosis of moderate cognitive disability presented for a consultation for orthodontic treatment because of crowded teeth. On oral examination the patient presented with skeletal class III and hypodivergent profile, severe crowding in the upper jaw with an anterior crossbite in 2.2 and retained teeth (1.3-4.2-4.3), all of them with a poor prognosis for orthodontic traction. Initially, the patient was treated only in the upper jaw with conventional orthodontic braces, MBT .022 prescription, for assessing her behaviour, pain tolerance and adaptation to treatment. Once the health team confirmed that the patient could benefit from treatment, 2.5 extraction was indicated, mainly to obtain space to correct the crossbite. After 8 months, 1.3 extraction was performed under conscious sedation, and platelet-rich plasma (PRP) was used as a filler for the tooth socket. One year after, due to the covid-19 pandemic, 4.2 and 4.3 extraction was performed, under the same conditions as the previous extraction. After 3.5 years, orthodontic treatment was ended. A fixed retainer was used in both jaws.

CLINICAL IMPLICATIONS

Orthodontic treatment for people with disability can be difficult for several reasons, such as behaviour challenges, severe anomalies, and access barriers for orthodontic treatment. It is important for clinicians to understand that orthodontic treatment in this group may take more clinical and treatment time, more challenging than in neurotypical patients, meanwhile outcomes may be equally successful as any treatment.

CONCLUSIONS

After 3.5 years, the patient completed successfully conventional orthodontic treatment, improving her oral health, oral hygiene, self-esteem, and oral functions. Orthodontist and oral health teams must work for decreasing orthodontic access barriers for this group, including treatment for this patient, training for future specialist and accessible working areas.

00100233

Oral health status and multiple Sclerosis: A case report

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CASE DESCRIPTION

Multiple Sclerosis (MS) patients have a higher risk of developing periodontal disease despite the limited evidence concerning dental caries. This case report aims to present an association between caries tooth loss and MS. A 49-year-old woman diagnosed 17 years ago with relapsing remitting multiple sclerosis (RRMS) was referred for dental consultation. The flare-ups occurred only once a year and lasted one week. Clinical oral examination revealed oral mucosal irritation, xerostomia, halitosis and gingivitis. One caries and eight restorations were observed, two of which had infiltrations. She had lost six teeth to caries and the remaining had a normal morphology and size without mobility. The patient complained of mild but persistent head and neck pain including the temporomandibular joint (TMJ) in addition to pain not specifically related to any tooth. In the anamnesis she referred to gingival bleeding during teeth brushing (twice a day) and frequent teeth grinding. The patient also presented xerostomia and hyposalivation – unstimulated salivary flow of 300 µl/min.

CLINICAL IMPLICATIONS

MS patients present three common oro-facial manifestations: trigeminal neuralgia, trigeminal paraesthesia and facial palsy. None of these conditions were observed but others were such as TMJ disorders, tooth hypersensitivity, grinding and, even more rarely, halitosis.

After endodontic treatment, dental implants and veneers were discussed pending bone and gingival assessment. Even with good oral hygiene and long periods of remission, MS patients have more caries tooth loss, which may be due to hyposalivation.

CONCLUSIONS

Several types of oral lesions and orofacial manifestations are observed in MS patients due to the disease itself or the medications used to manage it. In this case oral manifestations are scarce and good oral hygiene is maintained. However, the number of carious and missing teeth highlight the evidence that MS has a significant impact in the patient's dental status over the years.

00100234

Oral health screening results from 2019 Special Olympics-world games (2019-SOWG) Abu Dhabi

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AIM(S)

1. To evaluate the oral health status and needs of Athletes with Intellectual or Developmental disabilities at 2019 SOWG- Abu Dhabi- UAE, the first in the Middle East and the largest and most inclusive in Special Olympics history. Since UAE was the host country, "People of Determination" (POD) (coined in 2016) was used to empower People with Special Needs or Disabilities in recognition/celebration of their achievements, 2. To break barriers amongst dental professionals and students. Special Smiles, was the Oral Health team tasked to screen, educate and treat Athletes having dental emergencies, and their duty continued past the event to increase awareness on oral healthcare for POD in the region.

METHODS

A retrospective study of adolescent and adult athletes with intellectual disabilities, screened during the SOWG-2019 and their recorded oral health conditions. All participants consented to standardized non-invasive oral screening. Parallel to screenings, diet and hygiene education, fluoride varnish application and mouth guard fabrication were conducted. Urgent dental care was rendered in the Mobile dental clinic.

RESULTS

Of 3,432 Athletes screened, 313 (9.8% had mouth pain); 1,518 (49.2% untreated decay); 1,325 (43.1% gingival signs) and 146 (4.7% needed urgent referral). ((Also, 993 (32.2% had missing teeth))

Within other disciplines: 7000 footwear, 254 hearing aids and 837 pairs eye-glasses were provided.

www.specialolympics.org

CONCLUSIONS

*Universal Standardized screening protocols by CDC (Centers for Disease Control and Prevention USA) and analytical progress were used

*Group education and torch-and-mirror screenings for Athletes meant inclusive opportunities and desensitization of dental fear

*The mobile van enabled emergency dental treatments.

*Oral health Screenings and findings plus pain relief meant assurance of athletes' performance without interruptions from dental pain.

*Collection of worldwide oral health data.

*Exposure of dental professionals and students to understand, accept and treat people with disabilities.

*Follow-up rationales for Athletes' oral health conditions.

*Inclusion advocacy and a continuous legacy

00100235

The use of general anaesthesia for dental treatment of children with special health care needs in Alberta, Canada

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AIM(S)

The aim of this study was to identify the current practice in the use of dental general anaesthesia (DGA) among children with special health care needs (CSHCN) and to investigate factors associated with repeated DGA in these patients over a 10-year period in Alberta.

METHODS

A retrospective analysis of paediatric patients (age \leq 18) receiving at least one dental treatment under general anaesthesia at hospital- and community-based outpatient clinics in Alberta, Canada was conducted. Data were retrieved from the Alberta Health Service (AHS) administrative databases from May 2010–September 2020 and were screened for medical diagnosis (ICD-10-CA). Other variables included patients' demographics, socioeconomic status (SES), service providers, oral diagnosis, and procedure. Descriptive statistics were performed using SPSS software.

RESULTS

Of all DGAs (n=34,525) performed on children over the study period, 3771 (10.9%) DGA sessions were performed on 2598 CSHCN and were included. The study population consisted of 2335 (61.9%) males, with behavioural disorders as the most frequent medical diagnosis followed by congenital

disorders (n=1157;30.7% and n=791;21%). 50.9%(n=1853) of patients had only one DGA and 49.1%(n=1918) had 2 or more. The mean age was 8.9 ± 4.7 years and over 70% of the children were older than 6 years, with 6–11-year-old's representing the largest group (n=1534;40.7%). Children with most SES deprivation had 2.1 times higher number of DGA than those with least deprivation (n=891;25.8% vs n=428;2.4%). The main dental diagnosis was caries (n=2200;58.3%) and multiple diagnosis (n=505,13.4%). In total, 11,356 treatments were performed under DGA, of which filling restorations (n=2710;24%) and extractions (n=2322;20.5%) were the most common procedures.

CONCLUSIONS

The relatively high caries experience and repeated DGAs in CSHCN suggest the high-priority of this group, requiring more intensive preventive care, careful follow-ups, and oral health support. Moreover, the high DGA utilization among children with lower SES highlights the need for more accessible and effective public dental care programs.

00100236**Creation of an oral health information booklet for patients with microdeletion 22q11****M. Hernandez¹, D. Droz², C. Strazielle³, M.C. Maniere⁴**¹*Chru Nancy, Service of Paediatric Dentistry and Ccmr O-Rares, Nancy France*²*Faculty of Odontology, University of Lorraine, Vandoeuvre-Les-Nancy, France*³*Chru Nancy, Service of Adult Special Care and Ccmr O-Rares, Nancy, France*⁴*Chru Strasbourg, Service of Paediatric Dentistry and Ccmr O-Rares, Strasbourg, France***AIM(S)**

22q11.2 deletion syndrome is one of the most frequent rare disorder, seemingly under-diagnosed because of the inherent clinical variability and heterogeneity. The various phenotypes include craniofacial abnormalities with hypotonic muscles and oral dysfunctions, dental anomalies, congenital heart pathologies, endocrine dysfunction, cognitive impairments, and psychiatric disorders. A multidisciplinary approach combining dental and health cares is recommended from the youngest age to preserve oral health of this population. An oral health guide was designed in order to inform health professionals and families of the oral and craniofacial symptoms of the microdeletion and the possible care to prevent and treat the disorders.

METHODS

Four dental surgeons, members of rare disease centres and involved in special care, paediatric dentistry and oral functions designed the guide. They used the orofacial examinations and dental consultations of a large population of 22q11.2 young patients as well as the requests and advice of an association regrouping families with 22q11.2 children (generation 22). The guide was reviewed by a committee composed with members of the generation 22 association and dental surgeons.

RESULTS

The information presented in this brochure included data on the microdeletion symptoms and features as risk factors for dental health and abnormalities as well as preventive oral care according to the age of the patient. For each period of childhood to adulthood, the key points concerning dental development, risk of dental caries, frequency of radiographic check-up, rhythm for dental consultation as well as functional and orthodontic problems and dental trauma management were presented.

ACKNOWLEDGEMENTS

Filière de Santé maladies rares TETECOUC, Hôpital Necker, Paris

CONCLUSIONS

This brochure had a dual purpose: 1) to document oral manifestations of the syndrome, inform health professionals, particularly paediatricians and dental surgeons, facilitate 22q11.2 patient care and, 2) to offer oral health advice for patients and their families.

00100237**Dental management of a medically compromised patient with Ommaya reservoir: Interdisciplinary care****M. Ellis***Bristol Dental Hospital, Bristol, United Kingdom***CASE DESCRIPTION**

A 26-year-old female with multiple comorbidities was referred to our Special Care department by her general dentist. She had dental anxiety, plus a complex medical history including craniectomy, stroke, dilated cardiomyopathy, asthma and psoriatic arthritis. This history created a barrier to accessing primary care dentistry. Examination revealed poor oral hygiene, gingivitis, restorable and unrestorable caries. She was also scheduled to have a cranioplasty plate fitted to replace a third of her cranial vault and some means of regulating intracranial pressure. Consequently, an Ommaya reservoir was placed. Close collaboration with the Neurosurgical and Cardiology teams was essential, given her complex needs. She went on to have teeth restored and extracted under local anaesthetic, with behaviour management techniques, plus antibiotic prophylaxis, steroid cover, and stopping her regular anticoagulation.

CLINICAL IMPLICATIONS

This patient had an Ommaya reservoir placed to allow cerebrospinal fluid to be aspirated and control intracranial pressure. It was used as an alternative to a ventriculoperitoneal (VP) shunt. Ommaya reservoirs are more commonly used for delivering intrathecal or intraventricular chemotherapy and the Special Care team may encounter cancer patients with them. While Ommaya reservoirs and VP shunts do not usually require antibiotic prophylaxis, ventriculoatrial shunts do, and the associated medical condition may also be relevant to the patient's management.

CONCLUSIONS

Special Care dentists should have an understanding of the common types of intraventricular reservoirs and shunts, and the conditions they may be associated with. Typically, Ommaya reservoirs and VP shunts do not require antibiotic prophylaxis prior to dental treatment, but the neurosurgeon was sufficiently concerned to recommend antibiotic prophylaxis in this particular case. Liaison with other care providers is crucial to ensure good health outcomes for patients with complex medical histories.

00100238**Ocular prosthetic rehabilitation in the context of the 2019 social protests in Chile. Experience of the anaplastology clinic at university of Chile****C. Silva, S. Cordova, S. Kramer, M.A. Muñoz, G. Vidal***University of Chile, Santiago, Chile***AIM(S)**

To present the results of the “Comprehensive Rehabilitation for Victims of State Violence” program.

METHODS

This study provides a comprehensive description of the ocular rehabilitation technique followed at the Faculty of Dentistry of the University of Chile, which has a tradition of more than 70 years in the confection of ocular prosthesis. Detailed description of the management of an anophthalmic patient in the comprehensive rehabilitation program who required the preparation of an ocular prosthesis in the context of the social outbreak in Chile. Using techniques with predictable aesthetic results.

RESULTS

The treatment of ocular loss due to traumatic injury requires a comprehensive and interdisciplinary treatment approach.

CONCLUSIONS

The systematization of a technique and the experience of the anaplastologist is crucial for an optimal result. With this rehabilitation strategy highly aesthetic results have been achieved and, more importantly, the results have been accepted by patients.

00100239**Swallowing disorders in children with cerebral palsy: Study in the department of pedodontics – dental consultation and treatment center of Casablanca****Y. Ismaili, M. Hamza, A. Chlyah***Faculty of Dentistry of Casablanca, Casablanca, Morocco***AIM(S)**

The feeding component in cerebral palsy is often neglected by health professionals in our country. Parents are thus left to manage swallowing disorders whose numerous consequences can significantly reduce the quality of life. This work was conducted in order to assess the prevalence of these disorders and thus to avoid their complications.

METHODS

This is a descriptive cross-sectional study conducted among the parents of 62 children with cerebral palsy who consulted the pedodontics department, dental consultation and treatment center of Casablanca, from January to April 2019. Statistical analysis of the data was performed using SPSS software at the epidemiology and biostatistics laboratory of the faculty of dentistry of Casablanca.

RESULTS

50 (80.6%) children faced difficulties in feeding and 46 (74.2%) had a previous choking, 18 (29%) suffered from congestion due to inhalation pneumonia, 14 (22.6%) had gastroesophageal reflux and 51 (82.3%) were malnourished. 46 (74.2%) of the parents tilted the child's trunk backwards when feeding him and most of them did not know how to deal with a total or partial malaria.

13 (21%) were aware of swallowing disorders and 34 (54.8%) described their quality of life as poor.

CONCLUSIONS

If some of our results agree with the literature, others remain alarming and specific to our study population. In our context, in the absence of a global care and a regular multidisciplinary follow-up, raising parental awareness remains the best solution. In this perspective, a pedagogical booklet summarizing the main recommendations and intended for the child's entourage has been proposed.

00100240

Dental care provided to children aged 0 to 3 years at the disability outpatient clinic of casas André Luiz

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AIM(S)

The objective is to assess whether early actions and interventions, performed by the dental surgeon in early childhood, are important in building the quality of life of patients with special needs.

METHODS

There were 228 selected patients of both sexes, aged between 0 and 3 years old, enrolled in the Disability Clinic of the Centro Espirita Nosso Lar Casas André Luiz (<http://casasandre Luiz.org.br/>), a philanthropic organization that provides free assistance to people with disabilities, with multiple disabilities associated or not. A form was created on the Google Forms platform to enter information regarding consultations carried out from January 2020 to May 2022. In this space, the patient will be individualized through specific data about their general health and what was addressed or performed in the dental consultation. All responses collected were evaluated and summed up qualitatively and quantitatively, in order to understand whether early childhood consultations were of value and prevention for patients with special needs, and the set of developments are effective for building quality of life. enhanced. Those responsible signed a free and informed consent form providing and signing the data agreement for the research.

RESULTS

The partial evaluations are clear in demonstrating that the results of the actions performed by the dental surgeon in early childhood proved to be important and of great value in the growth and evolution of the patient with special needs and in their construction of quality of life.

ACKNOWLEDGEMENTS

CENTRO ESPÍRITA NOSSO LAR CASAS ANDRÉ LUIZ

CONCLUSIONS

The early intervention followed in this research leads to the conclusion that there was an improvement in the quality of life of the individual, in the short to long term, when the individual is monitored in the preventive and interventional dental sector, creating habits and behaviours that will lead to significant improvements for the patient in need.

00100242

Prevalence of Early Childhood Caries (ECC) among patients with special health care needs during their initial dental visit

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AIM(S)

To determine the prevalence and severity of Early Childhood Caries (ECC) among children below six years of age with special health care needs (SHCN) receiving dental services at a tertiary care children's Government Hospital.

METHODS

This study is a cross sectional descriptive study wherein the dental records of patients seen at the Paediatric Dentistry Division of the Philippine Children's Medical Center during their initial dental visit, from June 2000 to June 2010 were reviewed. Data collected were name of patient, age, gender, date of birth, date of initial visit and dmft index score. Caries was diagnosed based on the WHO recommendations.

RESULTS

A total of 1,031 patients, aged 0 – 71 months old, diagnosed with a medical condition or disability were included. The prevalence of dental caries in primary dentition was recorded according to age groups. Caries prevalence (dmft \pm sd) by age are as follows: age > 1 = 0.8% (.03 \pm 0.4); age 1 = 63% (4.15 \pm 4.8); age 2 = 95% (10.53 \pm 5.8); age 3 = 99% (13.96 \pm 5.0); age 4 = 99% (13.88 \pm 4.7); and age 5 = 99% (13.38 \pm 5.0). Data results showed minimal difference among the dmft scores of males and females.

CONCLUSIONS

Patients with special health care needs seen at the paediatric dentistry division of Philippine Children's Medical Center for the past 10 years exhibited a high prevalence rate and dmft score indicating severe early childhood caries.

00100243

Identification of people used with verbal, cognitive and neuromuscular: A study with health professionals on the scale of this

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AIM(S)

For a patient with cognitive, neuromuscular and verbal difficulties, when lying down, for example, in a dental chair, wouldn't the discomfort of the position cause regrets? A pain in the knee can cause facial expressions of discomfort as with these limitations he is not able to warn his caregiver or guardian that the pain is in the knee and not in the mouth.

METHODS

The survey was carried out with a total of 18 individuals. Through the videos, it was possible to explain the application of the DESS scale and its look at people with verbal, cognitive and behavioural limitations, providing guidance on the dynamics of pain, advising on the purpose of the research and the correct completion of the scale, which is structured in the form of questionnaire. During this activity, the DESS Scale was presented to all study participants.

RESULTS

Pain was not easy to assess. Because it is subjective and not visual, it is necessary to use scales to assess it. The DESS Scale, by the Frenchman Douleur

Enfant San Salvadour, is an instrument that enables the quantification and monitoring of pain in people with verbal, cognitive and behavioural limitations. Through this scale, health professionals will be able to relate the discomfort of the situation.

CONCLUSIONS

Health professionals who accepted the proposed challenge had several doubts. Some were specific and basic to fill in and which score was correct, but others had doubts about the assessment itself, with interesting negative and positive feedbacks for a second proposal for a future assessment, aimed at improving the scale and adapting it to patients with verbal limitations, specifically Brazilian cognitive and neuromuscular disorders.

00100244

The utilization of innovation- integrated community service learning for SCD online training during COVID-19 pandemic

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AIM(S)

The concept of Service-Learning Malaysia-University for Society, which advocates for community-engaged learning, was developed by the Ministry of Higher Education, as one of their High-Impact Educational Practices. This concept was adopted in the teaching and learning of Special Care Dentistry (SCD) at Universiti Teknologi MARA, Malaysia. This study was undertaken to analyse the student's perceptions, and the impact, of the innovation-integrated community service learning for SCD training, conducted online, during the COVID-19 pandemic.

METHODS

All final year dental students (n=90) were divided into 8 groups to develop innovative products for the different categories of SCD patients. At the end of the project, students were invited to answer a validated online feedback survey on their perceptions of the learning activity. Quantitative data was analysed using SPSS. Qualitative data was analysed via thematic analysis (Ethics approval: UiTM HREC REC12/2021 [MR 1004]).

RESULTS

Overall, 82 students (Response rate= 91.1%) responded to the survey. Most students agreed that the activity was interesting (90.2%), improved their understanding of SCD (89.0%), allowed interaction (90.2%), supported sharing of

ideas and experience (97.6%), encouraged student-lecturer interaction (95.7%) and enhanced knowledge integration and application (93.9%). Nevertheless, half of them (53.7%) felt neutral about having an increased workload from this activity. Students expressed that the learning activities were beneficial in enhancing creativity and innovation, improving knowledge, and understanding of SCD, instilling interest and positive attitude towards learning SCD, and encouraging teamwork. However, a few students noted facing some limitations in completing their projects (technological challenges and reduced physical access to purchase materials). There were differing perceptions in terms of time and financial commitments, as well as supervisors' and patients' involvement during the project development process.

CONCLUSIONS

Students perceived that the SULAM-based innovative project was beneficial in multiple aspects of SCD training during the COVID-19 pandemic.

00100245**Comparative evaluation of modified coronally advanced flap with and without PRF in the treatment of Miller's class I and II gingival recession defects****S. Sharma, R. Singh, K. Goel, S. Shrestha, S.R. Niraula***B. P. Koirala Institute of Health Sciences (BPKIHS), Dharan, Nepal***AIM(S)**

Coronally advanced flaps are the simplest and predictable procedures for root coverage and its modification has been preferred for the treatment of multiple adjacent gingival recession defects. However, addition of an inter-positional material is considered in achieving better outcomes. Therefore, the aim of this study was to assess the potential benefits of addition of platelet-rich fibrin (PRF) membrane on modified coronally advanced flap (MCAF) procedure.

METHODS

After obtaining ethical approval from the institutional review committee, BPKIHS, a total of twelve systemically healthy subjects aged 20-35 years with thirty-four Miller's class I and II gingival recession defects were randomly assigned to control (MCAF) or test (MCAF + PRF) group with seventeen defects in each. Vertical recession depth, gingival thickness (GTH), width of keratinized gingiva, probing depth and clinical attachment level were recorded at baseline, 1 month and 3 months, mean root coverage percentage (MRC%) at 1 month and 3 months and VAS score for pain at 10 days postoperative.

RESULTS

MRC % was 75.96 ± 21.01 and 83.23 ± 18.28 % in the control and test group respectively at 3 months with no statistically significant difference ($p > 0.05$).

However, statistically significant difference ($p < 0.05$) was obtained with respect to GTH gain at 1 and 3 months and decreased VAS score for pain at 10 days in test group compared to control. The intragroup comparison revealed statistically significant differences ($p < 0.05$) at 3 months for all parameters in both groups except for GTH in the control group.

CONCLUSIONS

PRF membrane did not provide additional benefit in terms of root coverage. However, an increase in GTH appears to justify the use of PRF along with MCAF for the treatment of multiple adjacent Miller's class I and II gingival recession defects. PRF membrane might be an alternative to different grafting materials in root coverage procedure.

00100246**Oral health status and its interrelationship with intelligence quotient of 6- to-12-year-old children attending a tertiary care centre in eastern Nepal****P. Gurung, B. Koirala, M. Dali, N. Shresthas, B. Deo***B. P. Koirala Institute of Health Sciences (BPKIHS), Dharan, Nepal***AIM(S)**

Oral health is influenced by many factors. Intelligence, measured as Intelligence Quotient (IQ) is a measure of cognitive development in child which can have an influence on perception and execution of oral hygiene instructions, making it one of the potential factors that affect oral health status. Objectives of this study were to assess the oral health status of 6- to-12-year-old children and to determine interrelationship of IQ with their oral health status.

METHODS

After ethical clearance from the Institutional Review Committee of BPKIHS, this study was conducted in a sample of 211 children of 6- to-12-years visiting the Department of Pedodontics and Preventive Dentistry, BPKIHS. Children were enrolled in the study after obtaining consent from their parents and assent from them. The Seguin Form Board Test was carried out for all the children to assess their IQ followed by intraoral clinical examination to record their oral hygiene status, dental caries experience, and gingivitis. Statistical analysis was performed using SPSS version 11.5 software using descriptive and inferential statistics.

RESULTS

Majority of the children were of average intelligence (30.3%). Oral hygiene status was good, fair, and poor in 24.2%, 45.5% and 30.3%, respectively. Mild gingivitis was observed in 73%, whereas, 27% had moderate gingivitis. The mean total caries experience was 5.98 ± 3.35 . There was no significant difference in oral hygiene status ($p=0.242$), dental caries ($p=0.512$) and gingivitis ($p=0.658$) in children with different levels of IQ scores.

CONCLUSIONS

The present study showed higher evidence of oral health problems in children. The proportion of good oral hygiene status was maximum in children of very superior intelligence group; however, the interrelationship was not significant statistically.

Invited Abstracts

Fibrodysplasia ossificans progressiva: Complexity of oral management

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Fibrodysplasia ossificans progressiva (FOP) is an extreme rare (prevalence of around 1 per 1.5– 2.0 million people) and disabling genetic progressive disorder leading to heterotopic ossification of muscles and tendons. Often preceded by flare-ups after trauma, limbs and skeleton are progressively immobilized. Approximately 70% of the FOP patients have developed limited jaw movements by an average age of 19 years.

Oral management of patients with this condition is complex and must be started as early as possible with precautionary and rigorous preventive measures. Patients do not have any specific dental phenotype related to this pathology, like the general population they may have caries, periodontal problems, and endodontic lesions not specific to the disease. However, routine care including extensive therapeutic education must be implemented as early as possible. The natural progression of FOP can begin as early as one or two years of age where mobility issues of the neck are noted. This may impact swallowing, as well as growth and development of the craniomandibular facial respiratory complex. Another of the major risks of this condition concerns the irreversible ankylosis of the temporomandibular joint that can be due to an infection of dental origin or an iatrogenic induced process. Particular precautions must be applied for these patients. Dental procedures should be performed under rigorous conditions, such as short sessions, delicate displacement and spreading of soft tissues, frequent breaks, and slow atraumatic injections.

Intramuscular injections including mandibular block anesthesia must be absolutely avoided. Complex dental care requires premedication with corticosteroids.

These patients must have access to quality oral care, including prevention, rehabilitation and orthodontic care. The provision of care, and the dos and don'ts, will be the absolute conditions for maintaining excellent oral health and a good quality of life.

The future of Special Care Dentistry (SCD) in Malaysia – Pillars to achieve the goals

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Since the introduction of the SCD service in Malaysia specifically in the Ministry of Health (MOH) facilities in 2011, it appears to be expanding its unique approach to the population in needs positively and has shown significant impacts in improving the oral health care services in Malaysia especially for people with disabilities (PWD). The ten year projection of the SCD service focuses on the strengthening and enhancement of the specialty through service expansion, facility improvement, professional development and training as well as manpower resources. The service expansion involves not only within the dental disciplines but also collaborative efforts with other medical disciplines such as geriatric and rehabilitative medicine, palliative care, physiotherapy, occupational therapy and anaesthesiology. The main pillar to the success of the SCD service in Malaysia is the continuous support from the policy makers in the Oral Health Programme, MOH which is the main oral health care services coordinator and provider in the country. It overlooks the needs of each dental specialty in relation to funding, facilities, postgraduate training sponsorship etc. It is further supported by enthusiasm and determination of the professionals within the SCD fraternity to achieve the common goal in reducing the gaps and barriers for PWD to access the oral health services.

Establishment of education and practice system for SCD in Japan

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The Japanese Society for Disability and Oral Health (JSDH) currently has about 4,000 members. The Japanese SCD system is built in close collaboration between the university and the local dental association. To ensure a certain level of quality amongst its members, JSDH launched a certified dentist system in 2003, and established a certified dental hygienist system, in 2008. JSDH has established a system of certified physicians, specialists, and supervising physicians out of nearly 1,000 members.

The number of Japanese dentists is over 100,000 now. And all dental schools now have 'Special needs dentistry course (SCD)', but subject name is not always SCD. Especially, the field of swallowing disorder (Dysphagia) treatments, dentists and dental hygienists contribute greatly to diagnose and treat of dysphagia. With dental intervention, devices that support various swallowing functions as well as oral health care are developed. Video fluoroscopic examination of swallowing and Video endoscopic examination of swallowing have spread to dentists in Japan, and various foods for dysphagic and disability people are appearing on the market and readily available. In our country, the problem of this life course has been worked from early 1980' by the method of its own medical insurance.

About postgraduate education, the objective of this academic society (JSDH) is to develop and promote networking and exchange amongst its members, as well as with related groups—both at the domestic and international scale, and to improve the skills in the fields of dental research, education, and healthcare for disability and oral health. And we are building a system to support special care patients living in the community in cooperation with dental hygienists and other occupations as well as dentists.

Development and use of the French Case Mix tool as an instrument to justify additional payment for Special Care Dentistry

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BACKGROUND

The vast majority of dentistry in France is funded via the national social security system that pays dentists on a fee-per-item basis. A new French dental public health measure provides a financial incentive for dentists receiving patients with disability, in the form of a 100€ supplement paid by the social security system directly to the dentist. Demand for the financial incentive is justified on completion of the French Case Mix tool (FCM) for each patient encounter. The tool consists of a seven-point questionnaire relating to the degree of adaptation to conventional care the treatment session required. Analysis has shown the FCM to be fit for the purpose, with good validity and psychometric properties.

KEY MESSAGES

If case mix tools are well-designed and are culturally appropriate, they may provide evidence of complexity of care for individual patient encounters. In terms of service provision, this may reassure stakeholders and policy makers as to the specificity of special measures, as in the French example. However, the impact on access to care for SCD populations is still to be evaluated. This recent financial measure has made a huge difference to pre-existing Special Care Dental services in terms of financial stability and sustainability. It is unknown however whether access to care has improved in general dental practice.

CONCLUSIONS

Case mix tools are useful in healthcare systems to identify patients requiring SCD. They may be used to justify additional payment, as in France, or to estimate population numbers for commissioning purposes, for example.

Evidence-based practice in SCD

Mami Endoh

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Many reports show that SCD has good effects on the QOL. Patients with special needs are diverse and have mental, physical, emotional and economical barriers. Many dental personnel in the world give original dental treatments and oral health service. SCD should be based on Evidence-based practice (EBP), because of equality and high quality.

The Japanese Society for Disability and Oral Health (JSDH) was founded and has held an annual meeting once a year since 1973. We have published a journal since 1980. There is a lot of evidence such as basic and clinical research, and clinical reports. JSDH members have not only ensure the quality of SCD, but also contributed to improving QOL considering the wish of patients through the evidence in Japan. This is EBP in SCD.

Especially EBP for SCD is important to support special needs patients in the world on Universal Health Coverage (UHC) which is adopted by the United Nations in 2015. UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course.

It is necessary to build up strategies based on EBM for global oral health. We should share and develop the results of research with the world. Because of this, we founded AADOH (Asian Association for Disability and Oral Health) to foster good relationships and provide high quality SCD with Asian countries, and we had our 1st conference in 2019 in Taiwan. This year we will have our 2nd conference in Japan.

This symposium, I introduces some research from JSDH and AADOH.

Qualitative research in special care dentistry

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Qualitative research is a valuable but underutilised approach to understanding the needs and experiences of disabled people in relation to their oral health and oral health care in SCD. Adopting a social model approach with contextualises the experiences of disabled people in relation to the barriers that they face accessing quality care, this paper is split into three parts. In the first part the potential for a qualitative approach is outlined in better understanding the experiences of the patient population and allowing researchers to answer important questions of relevance to policy and practice that are difficult to answer using quantitative methods alone. In part two a brief overview of current qualitative studies in SCD is presented and evaluated. The final part of the paper then looks at what can be done both to strengthen qualitative research and research skills but also to better integrate this approach into the evidence base for SCD. At its best, qualitative research can challenge the norms and assumptions of SCD practice, by foregrounding and contextualising the experiences of disabled people using those services and identifying barriers to care.

Keywords: Qualitative, research methods, social model, experiences

What does the evidence tell us about what needs to change in relation to oral hygiene interventions for people with intellectual disabilities?

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BACKGROUND

The removal of dental plaque by daily toothbrushing plays a major role in preventing tooth decay and gum disease, the two main causes of tooth loss. Toothbrushing is a skill, it needs to be done regularly and may require special tools; it can be difficult for some people to brush well enough to prevent these oral diseases. People with intellectual disabilities (ID) may require help with their toothbrushing and the people who care for them may need training to help them.

The effectiveness of interventions to improve the oral hygiene of people with ID have shown inconsistent results and demonstrated little long-term impact on the oral health of the target population when evaluated in a Cochrane Systematic Review (1). Using an alternative research methods, a Realist Review, has provided a greater understanding about how, why, when and for whom these interventions work (2).

KEY MESSAGES

A comprehensive evaluation of existing oral hygiene interventions for people with ID can provide evidence to guide both practical and theoretical approaches for the design, implementation and evaluation of future oral hygiene interventions for people with ID. The types of interventions, the outcomes of interest, the key stakeholders (Person with ID, their carers, dental professionals and organisations) and other contextual elements will all be considered.

CONCLUSIONS

If future oral hygiene interventions for people with ID are to be more successful, changes need to be made to how they are resourced, designed, implemented and evaluated to ensure engagement and sustainability. By critically reviewing what has been done in the past we can learn and improve. I am grateful for the support of Oral B to attend this conference; this support has had no impact on the content of the presentation.

Active learning strategies in special care education

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Dentistry is largely learned experientially. Watch one, do one teach one is an old strategy for clinical teaching. During didactic classes, however, students can be more challenging to engage. Active learning strategies can be used to engage students in learning special care dentistry. Facilitated literature review, muddiest points, disability awareness exercises, and case discussions can all be utilized to make the classroom more fun while developing empathy and understanding and hopefully igniting the spark for special care in the next generation of providers.

Measuring complexity in patients with special needs attending Special Care Dentistry (SCD) clinic in Malaysia using adapted BDA Case Mix Model

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In 2019, British Dental Association (BDA) developed a case mix tool for measuring patient complexity to aid commissioning and evaluation of special care services. This Case Mix Model identifies various challenges in patient complexity and every episode of care is measured separately to reflect the different complexities for the individual patient depending on the nature of each episode.

AIM

To measure complexity in patients with special needs attending Special Care Dentistry (SCD) Clinics in Malaysia using adapted BDA Case Mix Model.

METHOD

Realizing that this original BDA tool cannot be used in Malaysian setting, a small study was conducted among the 7 SCD specialists as well as 10 general dental practitioners (GDPs) who managed patients with special needs on daily basis, to test the original tool. Each component was tested and discussed thoroughly based on their understandings, current practice as well as the local rules and regulations. It was then modified accordingly and utilized for people with special needs attending SCD clinics to demonstrate the challenges and work load of the general dental practitioners and specialists.

RESULT

The result revealed that majority of the patient who attended SCD clinics could be categorized under moderate complexity (30.4%; n =566) followed by those with some complexity (24.2%; n=451). Most of the patients with multiple disabilities (more than two disabilities (B)) fell under the band of severe complexity (n= 86, 4.6%) followed by extreme complexity (n =70, 3.7%).

CONCLUSION

This data can be used to measure the complexity of the dental patients seen at the SCD clinic in Malaysia and can help to formulate better individualized treatment. In future the value of this study is pertinent to relevant authorities and policy makers to make improvements to the oral health care delivery for people with special needs.

Orthodontic treatment in patients with Epidermolysis Bullosa

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Inherited Epidermolysis Bullosa (EB) is a heterogeneous group of genetic disorders with skin fragility, characterized by reduced resistance of skin and mucosa to mechanical trauma. There are four major subtypes, each one with specific clinical features such as microstomia, ankyloglossia, severe vestibule obliteration, depapillated tongue, amelogenesis imperfecta, and vesiculobullous lesions; turning orthodontic treatment into a challenge. To date, information on orthodontic treatment for these patients is scarce, with few publications available.

Clinical cases of orthodontic interventions in patients with Simplex EB, Junctional EB, and Dystrophic EB with successful strategies such as early teeth extractions, orthopedic treatment (MARPE), fixed metallic braces, and aligners will be shared. Difficulties, challenges, strategies implemented, and lessons learned in each patient will be presented.

CONCLUSIONS

It is possible to perform orthodontic interventions in patients with Epidermolysis Bullosa. Even though it can be challenging for the professional, the results can considerably improve the quality of life of these patients.

The authors declare that written consent has been received from patients for the publication of case reports, including publication online and in the public domain.

Improvement of masticatory capability after full-mouth comprehensive dental treatment under general anesthesia for severe early childhood caries

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AIM

Recent studies suggested that oral condition, and in particular the integrity of sensory information from teeth receptors, was an important determinant of mastication development in the preschool period. However, there is no data concerning the evolution of the ability to reduce foods in particles ready-to-swallow in children undergoing full-mouth rehabilitation. This one-year follow-up study explored the progression of children masticatory capability after comprehensive dental treatment for early childhood caries (ECC).

METHODS

Masticatory capability, evaluated with the calculation of the median particle size value (D50) at the individual swallowing threshold (Nc) for raw carrot, cheese and cereals' food boluses, of 16 children with ECC was explored before, 1-3, 6 and 12 months after comprehensive dental treatment under general anesthesia (GA). Without data concerning physiological evolution of masticatory capability, twelve age-matched children with healthy oral state were also included. Children with ECC were categorized in two groups whether the rehabilitation included posterior teeth extraction or not.

RESULTS

Before treatment, masticatory capability was impaired in children with ECC compared to “healthy” children for the three foods. Twelve-months after treatment, D50 values did not show any statistically significant difference anymore for carrot and cereals and the significant difference decreased for cheese. In children with ECC, the mean D50 values 12 months after treatment were significantly lower for carrot and cheese compared to before treatment. D50 values were significantly lower for carrot and cheese for children who did not have posterior teeth extraction.

CONCLUSIONS

These first results suggested that masticatory capability improved in children with ECC following comprehensive dental treatment under GA. This treatment should enhance conservative treatments as masticatory capability stayed impaired for children treated with posterior teeth extraction. Data concerning growth and nutritional status, and other specific populations treated with other rehabilitations, will be discussed during the presentation.

Dysphagia and oral health management

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Dysphagia can become the serious issue in the super-aged society since various diseases cause dysphagia in the elderly, which significantly deteriorate their ADL and QOL. Since dysphagia leads to serious complications, such as malnutrition, pneumonia, or choking, proper dysphagia management is important to maintain the quality of life in patients with dysphagia. Oral health care and oral rehabilitation play essential roles in multidisciplinary dysphagia management. Poor masticatory performance increases the risk of malnutrition, choking or aspiration pneumonia in those patients, resulting in change the diet property to soft or liquid diet. Thus, supporting both mastication and swallowing for those patients would maintain or improve their QOL. On the other hand, oral health care plays an important role as infection control. The prophylaxis of pneumonia by oral health care has been widely reported in various situations from hospitalized patients to nursing home residents. Standardized oral care protocols are expected to maintain universal oral health standards. Chalmers et al. had introduced Oral Health Assessment Tool (OHAT) for oral health screening and standardized oral health care protocol in nursing home residents. We have developed Japanese version of OHAT and applied it to oral health care protocol in hospitals or nursing homes with the concept of team approach. In the protocol, standardized oral care by nurses and professional oral care by dental hygienists are efficiently combined. Involvement of dental professionals in dysphagia rehabilitation can enhance the quality of dysphagia and oral health management.

Oral frailty and oral hypofunction

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Eating is one of essential human digestive function but also the joy of living left till the end of our life. Thus, supporting proper oral health and eating function would lead to longer healthy life for older individuals in super aged society. Recent studies widely report the association between oral health and nutritional status or systemic frailty. Since the mouth is the entrance of nutrition, deterioration of oral function may cause deviated nutrition or malnutrition and eventually lead to frailty or declined ADL.

Japanese Society of Gerodontology has proposed "oral hypofunction" which is defined as several deteriorated oral symptoms and signs. Oral hypofunction consists of deteriorated seven oral functions that can be measured quantitatively with specific devices. By quantitatively measuring sub-symptoms of oral function, deterioration of oral function can be found in early timings and be recovered by the early intervention. Recent large cohort studies have reported the association of oral frailty or oral hypofunction and physical frailty in older individuals. Our recent studies also show that comprehensive intervention program combined oral health and nutrition improve oral hypofunction in community dwelling older adults. However, further studies of the intervention on oral frailty or oral hypofunction will be warranted.

Treatment strategy for the people with intellectual disability in Asia

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Intellectual disability is a disability that limits cognitive functions, such as communication and the ability to perform personal and social tasks. Korea's Ministry of Health and Welfare classifies permanent disability into 15 types and provides various support. Although intellectual disability is not the most common type of disability in Korea, it is considered important in terms of cooperation with dental care. Intellectual disability is the most common disability among patients who visit the specialized dental center where I work.

In the field of dentistry, intellectual disability tends to aggravate dental diseases because it is difficult to manage daily mouth care, and it is often difficult to obtain cooperation for dental treatment due to difficulties in adapting to a new and unfamiliar environment. However, the learning and adaptability of individuals with intellectual disability should not be underestimated. In the rehabilitative dimension of patients with intellectual disability, improvement or deterioration in learning and adaptation can be formed through various trials and errors.

If various behavioral control methods for patients who cannot cooperate are carefully selected and applied according to the type and difficulty of treatment, trauma that may occur during dental treatment is minimized and continuous oral hygiene management is possible. The existence of a specialized dental care institution, supported by government, capable of even the highest level of behavioral control methods such as general anesthesia suggests an efficient method for dental care for people with intellectual disability, and through this, the improvement of adaptation and cooperation to dental care is confirmed through a retrospective study. Dental care for people with intellectual disability can be facilitated by establishing an effective dental delivery system including institutions that can provide the highest level of behavior control methods.

External crown resorption in patients with syndromic amelogenesis imperfecta and rare diseases

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Failure of teeth eruption has been described in multiple reports of patients with syndromic amelogenesis imperfecta (AI). An example are patients with Junctional Epidermolysis Bullosa (JEB), a genodermatosis with skin fragility. External crown resorption (ECR) was recently reported in a patient with JEB, explaining a possible cause for the failure of teeth eruption.

A cohort of patients with JEB will be presented, with a follow up of 15 years. ECR was observed in 58% of the patients, affecting of average 2 teeth per patient. Peri-eruptive crown resorption was observed on temporary and permanent teeth, affecting incisors, premolars and molars. Clinical, histological and radiographic findings will be presented, and clinical guidelines discussed.

Single cases of external crown resorption in patients with syndromic amelogenesis Imperfecta associated with other rare diseases such as Goltz syndrome (focal dermal hypoplasia) will also be presented.

The authors declare that written consent has been received from patients for the publication of case reports, including publication online and in the public domain.

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