

ORAL MANIFESTATIONS AND MAXILLO-FACIAL FEATURES IN THE ACROMEGALIC PATIENT, A REVIEW

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Aim: acromegaly is a chronic disease caused by an excessive secretion of Growth Hormone (GH). It is characterized by a slow progression of signs and symptoms with multisystemic involvement. The literature underlines that the most evident and early signs are those related to soft tissue thickening and skeletal overgrowth, especially in the acral and head and neck region.

Methods: the authors reviewed the available literature on acromegaly oro-dental features, selecting articles from PubMed and Google Scholar. The aim of this review was to summarize all the reported clinical oro-dental features of the acromegalic patient.

Results: the most common facial dimorphisms involved the maxillofacial area, in particular paranasal sinuses, frontal bones and glabella. The most frequent oro-dental signs are dental diastema, mandibular overgrowth and prognathism, macroglossia. These signs of acromegaly can be significantly reduced with adequate and early treatment.

Conclusions: increased awareness of acromegaly among dentists and maxillo-facial surgeons along with the early identification of oro-facial changes could lead to an earlier diagnosis and treatment, improving patients' quality of life and prognosis.

PERIODONTIUM AND ORTHODONTICS: WHEN, HOW AND WHY TO OPERATE. CASE REPORT

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Aim: the aim of this study is to illustrate a case of intrusion of severely compromised maxillary periodontal incisors through the application of light orthodontic forces and diode laser without periodontal side effects and with good finalization of the orthodontic treatment.

Methods: a 37-year-old woman with hypothyroidism, depression and chronic generalized periodontitis. On intraoral examination the patient presented 21 and 22 with severe vertical bone defect, bleeding on probing and suppuration, grade 2 mobility according to the Mille scale, and severe extrusion and distal tipping of the same. After periodontal treatment with scaling, root planing and diode laser, fixed orthodontic therapy

was carried out using a straight wire and low friction technique. Orthodontic tooth movements were monitored with diode laser, with a "bone socket sterilization" program (0.8 W, fibre 300) and "biostimulation" (0.1 W, fibre 300).

Results: in 11 months of treatment, intrusion and levelling of 21 and 22 were obtained, with improvement of mobility and depth of periodontal pockets. Retention with retainers 13 to 23 and Essix per maxillary arch were used.

Conclusions: the application of light forces associated with the monitoring of bacterial plaque and biostimulation of periodontal sockets using the diode laser allowed the control of the inflammatory state of periodontal sockets preventing their progression.

SYNDROME: SURGICAL DENTAL THERAPY. CASE REPORT

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Aim: Rett's Syndrome (SR) is defined as a degenerative disorder of genetic aetiology. Through direct DNA sequencing the presence of mutations in the MECP2 gene was found in zone Xq28, it plays a vital role in the development of the nervous system. The experiences of rehabilitation of the oral cavity have been refined especially through dental extraction at the dental clinic of the University of Bari.

Methods: twenty-six female patients with SR were examined. The case with the most evident characteristics is examined. At first dental visit correlated with panoramic radiography and gnathological examination were performed. The patient had dental extraction under general anesthesia and had follow-up at 1, 2 and 4 weeks to evaluate the tissue regeneration capacity.

Results: during the study were found: sucking and/or biting of fingers and/or hands (26/26), atypical swallowing (10/26), bruxism (22/26), oral breathing (12/26), reduced oropharyngeal clearance (23/26), hypomobile tongue (10/26), anterior open-bite (20/26), juvenile periodontitis (8/26), masseterin hypertrophy (23/26), single dental inclusions (18/26), abscesses dental and periodontal (9/26), cysts (18/26). No dental anomalies in number, size, shape, structure were observed and only one patient showed physiological occlusion.

Conclusions: patients suffering from SR need a multidisciplinary therapeutic, it is important to carry out an early diagnosis to orient preventive and curative strategies of the diseases of the oral cavity.

AUTISM AND MUSIC THERAPY: CASE REPORT

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Aim: autism spectrum disorders (ASDs) are long-life neurodevelopmental disorders that can profoundly affect quality of life. The aim of this work is to report the case of a patient suffering from autism spectrum disorder in need of restorative care.

Methods: an uncooperative, non-verbal 17-year-old man with ASD was referred to the Dental Clinic for restorative care. Previous dental treatments have always been carried out with the administration of benzodiazepines and nitrous oxide. A new behavioral approach was planned. It was decided to reduce anxiety and unwanted behaviors by placing a wireless neckband speaker on the dental unit that played relaxing music at 432 Hz. Local anesthesia was then administered, a rubber dam was placed and the tooth decayed. it has traditionally been treated and restored.

Results: the patient, initially very agitated and uncooperative, became calm after the administration of a relaxing music, allowing the dentist to perform the dental surgery. Listening to music at 432 Hz, by increasing the production of endorphins, has probably helped to relax the patient.

Conclusions: patients with severe disabilities such as those with non-verbal autism spectrum disorders need to receive special dental care performed by dentists trained both in the particularity of ASD and in all available behavioral techniques. The use of different types of behavioral approaches such as the tell show do technique or music therapy can allow to obtain dental care in many patients with special needs, avoiding the use of sedative drugs.

POST-TRAUMATIC PROSTHETIC REHABILITATION OF A YOUNG PATIENT WITH SPECIAL NEEDS

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Aim: increased over-jet and labial incompetence represent well-known risk factors for dental traumas in children and adolescents. With the presence of cognitive and psychomotor impairment, the incidence of traumas rises dramatically, along with the difficulty to realize an appropriate rehabilitation protocol. The patient who came to our observation at the University Hospital “Federico II” of Naples, Italy, was a 16-year-old girl with severe cognitive impairment. She had lost 1.1 and 2.1 after a dental trauma, four years before, and she suffered from an acute plaque-induced gingivitis.

Methods: because of her systemic conditions, the patient was treated in two sessions under general anaesthesia. The first time, an impression of the mouth was taken, and scaling and root planing were conducted. Thus, a pre-filed resin Maryland

bridge was realized. During the second session, palatal slots were prepared on 1.2 and 2.2, in order to increase adhesion, and the Maryland bridge was cemented with composite material, after having appropriately adjusted it.

Results: the patient was followed-up at 1, 3 and 6 months and 1 year from the prosthetic rehabilitation. Even though it is hard to maintain a good plaque control in a disabled teenager, it was observed a good bio-integration of the device and 1 year later no signs of decementation or secondary caries were detected.

Conclusions: this case was solved combining conservative, prosthetic and periodontal skills. It is often necessary in paediatric dentistry to have a multidisciplinary approach, especially when treating special needs patients.

DOMESTIC ORAL HYGIENE OF AUTISTIC CHILDREN: CUSTOMIZED INFORMATION FOR PARENTS/CAREGIVERS

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Aim: conveying customized information to parents/caregivers of patients affected by Autistic Spectrum Disorder (ASD) attending the Pediatric Dentistry Unit of Policlinico Umberto I of Rome, in order to provide them the necessary instruments and skills to take care and improve their children’s oral health.

Methods: starting from October 2021 parents/caregivers of ASD patients were given informative material in the form of pamphlets and practical instructions. Pictures show the more effective positions for brushing children’s teeth (e.g. hand below the chin) and the methods to open wide lips and cheeks to release muscle tension. Switching to an electric toothbrush is recommended due to its similarity with the handpiece, but in the end the best device results to be the one the adult suc-

ceeds in using effectively. Apps and videos are effective in helping the child focus on the procedure. Low-fluoride concentration toothpaste is recommended for remineralization in those patients who are not able to rinse, to be less harmful if swallowed. Pictures and suggestions for orthodontic devices are included, for those patients whose compliance allows their use.

Results and Conclusions: as a result of a daily clinical interaction with ASD children and their families, this wants to be a useful instrument to sum up all the recommendations made at every check-up, so as to be more effective in helping to improve the oral health of ASD patients. Feedback was overall positive: enhancements based on it will be made, as well as records regarding improvements in oral hygiene standards.

LONG-TERM IMPACT OF COVID-19 IN CLINICAL MANAGEMENT OF AUTISTIC CHILDREN

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Aim: in July 2020 the working activity in the Pediatric Dentistry Department of Policlinico Umberto I of Rome restarted. The primary goal was to take up again the service dedicated to children with Autistic Spectrum Disorder (ASD). However, the new increasing number of infections, impacted again on the services, with consequences on the oral health of ASD patients. In light of this, a new evaluation survey was administered to the same group of interviewees of June 2020, to evaluate the evolution of the pandemic on the reorganization of the clinical service.

Methods: the study included parents of ASD children aged between 3 and 18, attending the Department.

Results: in June 2021, 100 parents were administered an online anonymous survey; 70 fully filled surveys were received.

The questions focused on the level of satisfaction regarding the service offered between July 2020 and May 2021 and the impact of Covid-19 on the reorganization of the project. 56% of the subjects affirms that pandemic greatly affected the organization of our department, while 44% does not. The same difficulties encountered in using Telemedicine in the lockdown in 2020 are still present. 18% (2021) versus 19% (2020), finds it difficult to use, while 41% (2021) versus 19% (2020), finds it easy to use.

Conclusions: as soon as the conditions will allow it, we wish to improve the most critical aspects and make our department a medical center of excellence. Furthermore, we believe that creating a permanent Telemedicine center will be of essential support for families, even in emergency periods.

CARE PROTOCOL FOR HOME PROSTHETIC DENTISTRY IN FRAIL AND INSTITUTIONALIZED PATIENTS

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Aim: the aim of our work is to investigate the possibility of simplified treatments in order to reduce the number of sessions for the fabrication of total removable prostheses, using the patient's old and incongruous prosthetic devices as a reference.

Methods: the clinical case was treated according to a simplified two-step procedure: during the first one, the maxillary position was detected with the facial arch and phonetic tests were performed, then the centric relation was recorded and finally the polysulfide precision impression was taken using the patient's old prostheses as individual impression trays, after beading; in the second one, the new artefacts were delivered to the patient.

In addition, an intraoral scan of the prostheses and soft tissues was performed to compare their accuracy to the traditional impression.

Results: the traditional impression procedure allowed the fabrication of removable prostheses with a correct vertical dimension that improved patient's masticatory function and aesthetics, while as for intraoral scanning we could not obtain the same accuracy due to the difficulty in detecting soft tissues.

Conclusions: this method is applicable to a home pathway where patients who turn out to be frail or unable to go to the surgery are assisted thanks to a simplified protocol.

ORAL HEALTH STATUS IN PATIENTS WITH HEAD AND NECK CANCER: A CROSS-SECTIONAL STUDY

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Aim: the aim of this cross-sectional study was to present a description of the oral status of a cohort of patients with head and neck cancer (HNC) at the time of dental evaluation prior to radiotherapy (RT).

Methods: two hundred and thirteen patients with HNC, for which a RT treatment was scheduled, were examined with the support of orthopantomography. Among the parameters recorded during the examination were: DMFt, periodontal status and grade of mouth opening. The protocol was approved by the ethics committee of the Catholic University of the Sacred Heart (Ref: 22858/18) and was registered on ClinicalTrials.gov (ID: NCT04009161).

Results: one hundred ninety-five patients were included in the final analysis. The 74.9% (146/195) of the patients had poor

oral conditions (defined as having a DMFt score ³ 13 and stage 3 or 4 periodontitis). Univariate analysis showed that some population characteristics were correlated with poor oral conditions, namely tumor site, smoking habit, and age of patients (in decades): χ^2 Test - $p < 0.05$. Multiple logistic regression analysis confirmed smoking habit (OR = 3.27; 95% CI = 1.46-7.33; $p < 0.05$) and age (OR = 2.98; 95% CI = 2.01-4.41; $p < 0.05$, for age) as risk factors for poor oral health.

Conclusions: this study confirms that the oral conditions of patients with HNC are often compromised even before starting cancer treatments and, consequently, highlights the relevance of promptly scheduling a dental evaluation for all patients who are diagnosed with HNC.

DENTAL TRAUMA IN CHILDREN WITH AUTISTIC DISORDER: A RETROSPECTIVE STUDY

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Aim: to assess the oral status of autistic children, comparing it with no autistic patients.

Methods: a retrospective study analyzed the oral health status of 70 children, 35 with autism and 35 without the disorder. Conditions assessed were dental trauma type, periodontal tissue injuries, soft tissue lip injuries, different treatments carried out, associated soft tissue findings and disorders, and the long-term management. All patients (≤ 15 years of age) were chosen consecutively.

Results: females (57%) suffered more traumatic injuries than males (43%) in the autistic group, whereas males affected by dental trauma (54%) are predominant in the control group. The enamel fracture was the main finding among

the dental trauma types in both groups followed by enamel/dentin/pulp fracture (31%), root fracture (11%), and avulsions (3%) in the autistic group and by avulsions (20%), root fracture (11%), and enamel/dentin/pulp fracture (6%) in the control group. The comparison of all variables of the two groups showed a statistically significant difference ($P < 0.012$). The lower lip was statistically more injured than the upper lip ($P < 0.005$).

Conclusions: the composite restorative technique was the most common approach carried out; the long-term evaluation, when possible, was predominantly managed through root canal therapy in the control group (81%), and root canal therapy (50%) and tooth extraction (50%) in the sample group.