CORRELATION BETWEEN ORAL HEALTH AND THE POOR CONDITION IN THE MIKUMI POPOLATION (TANZANIA)

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Aim: the study was conducted at the San Kizito Hospital, Mikumi, (central east Tanzania). The aim of this article is to present the results of the investigation carried out in the village of Mikumi. Through the index DMFT (Decay/missing/filled teeth), the relationship between oral health and socioeconomic inequality was assested, using data collected from a sample of the population.

Methods: a sample of 1010 people between the ages of 15 and 59 was considered. The sample was subdivided into four groups based on the age of people (15-25 yr, 26-35 yr, 36-45 yr, 46-59 yr). The data on each person was collected through a dental visit.

Results: the cumulative DMFT of those between 15 and 25 years old (361 people) is 1.5. In the 26-35 years old (265 people) the result is 3. In the third group, the 36-45 years old (174 people) the DMFT is 4.

In the 46-59 years old (210 people) the DMFT is 4.5. These results were compared with the average income and occupation level.

Conclusions: considering the correlation between oral health and the economic possibility of having access to medical care, the research carried out shows that only 30% of the people are employed with good wages (clinical doctors, healthcare workers and nurses) and can afford a good service of oral health. It is necessary to improve knowledge and promote oral health prevention programs.

AN INNOVATIVE COLLAGEN-BASED APPROACH TO PRESERVE AND MAINTAIN THE ORAL SOFT TISSUE HEALTH

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Aim: collagen plays a key role in the biochemical and structural support of oral tissues and in the maintenance of soft tissue health and long-term implant stability, while collagen fibers alterations seem to be involved in the etiopathogenesis of periodontitis and peri-implantitis. In this regard, photobiomodulation (PBM, LED 630 nm) has been recently proved to be useful in promoting new collagen deposition by fibroblasts. Thus, this study aimed at assessing the *in vitro* and *in vivo* effect of a collagen-based medical device (COL) in presence or absence of PBM on oral tissues.

Methods: COL-PBM effects were assessed on primary human gingival fibroblasts (hGF), oral osteoblasts (hOB), and endothelial cells (HUVEC), and on periodontal and peri-implant soft tissues in different clinical case reports. In particular, cell viability, wound healing, mineralization, cell adhesion to COL-coated implant surfaces, and the expression of mechanotrasduction markers were evaluated for the *in vitro* protocol.

Results: the *in vitro* results showed that COL, also combined with PBM, allowed a significant increase of the overmentioned parameters, acting as a mechanical bio-scaffold. Then, the use of COL-PBM *in vivo* lead to neocollagenesis, hydration and maintenance of periodontal and peri-implant soft tissues up to 6 months.

Conclusions: these data proved the efficacy of using COL-PBM in counteracting the oral physiopathological aging, and in promoting structural, functional, and aesthetic tissue support, besides shedding light on the great therapeutic potential of using this approach for periodontal and peri-implant tissue rejuvenation and maintenance and in preventing some oral diseases.

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RCT OF NONINFERIORITY OF THE ANTI-PLAQUE POTENTIAL OF A MOUTHWASH CONTAINING FATTY ACIDS

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Aim: the aim of the present study is to evaluate by means of a randomized clinical trial the degree of effectiveness of a mouthwash containing fatty acids compared to a mouthwash containing ammino stannous fluoride toward chemical control of bacterial plaque.
Methods: the above study involved 16 healthy subjects with at least 20 natural teeth aged 18 to 25 years, who for the 14 days prior to the start of the study had abstained from oral hygiene maneuvers resulting in plaque-dependent gingivitis. They were administered according to block randomization either a mouthwash containing FAG or amine stannous fluoride for 14 days in the doses 2/die/10 ml/60"; statistical software was used to generate randomization tables and graphs.
Results: the plaque and bleeding indices at baseline of the study patients before the clinical trial and after the use of the two different mouthwashes were evaluated. The results showed that abstaining from oral hygiene maneuvers for 14 days resulted in plaque-dependent gingivitis in the entire cohort of patients with a reduction in the bleeding index in the 14 days following treatment with FAG and amino stannous fluoride by 0.14% and 0.1% respectively.
Conclusions: comparisons between the two treatments showed no statistically significant differences between the two types of solution products, therefore, the FAG mouthwash proved to be noninferior in terms of reducing plaque indices compared to the amine stannous fluoride mouthwash.

ANXIETY IN A ROUTINARY DAY OF A DENTIST: PATIENT RELATIONSHIP… DOES IT MATTER?

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Aim: this study evaluates correlations between physiological indexes and psychological variables during a working day in dentists, bridging the gap between anxiety, patient approach anxiety and physiological activity in dentists.
Methods: psychophysiological measures were collected from 20 young dentists. Electrodermal Activity (EDA), Heart rate (HR) and Heart rate variability (HRV) were measured with Empatica-E4 wristband, a device that participant wore for 24 hours while working, sleeping and during the rest of the day. General anxiety disorder-7 Questionnaire and a self-reported anxiety scales were also administered.
Results: 5 participants (3F, 2M) had a GAD-7 compatible with a moderate general anxiety disorder. Females reported higher anxiety in confronting the patient ($p = 0.002$) and lower HRV ($p = 0.022$). Higher values of EDA were found during sleep time ($p = 0.037$).
Conclusions: a global shift in the nocturnal sympathetic activity was found as a possible biomarker of excessive stress in dentists. Anxiety in confronting the patient was associated with the Female gender. No difference between Males and Females was observed through the validated anxiety questionnaire. A lower parasympathetic activity was found in Females while a comparable sympathetic activity with Males was found, thus fostering a possible vulnerability to excessive stress for the Female group. 25% of dentists fell within generalized anxiety disorder diagnosis. These data underline the need to pose attention to the health of dentists and open a way to monitor it.

IMPACT OF DIODE LASER IN PERIODONTITIS TREATMENT: RANDOMIZED CLINICAL AND MICROBIAL TRIAL

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Aim: the aim of the study is to detect the different effects of the following approaches: scaling and root planning (SRP) alone and SRP in association with diode laser for the treatment of generalized aggressive periodontitis (GAgP).

Methods: 31 patients affected by GAgP were selected in the research using a split-mouth design. Randomly right and left maxillary quadrants were treated with SRP plus diode laser or with SRP alone. During a year, patients underwent routine checks for detecting changes in their clinical, microbial, and inflammatory mediator profiles. At each follow-up appointment, sub-gingival biofilm samples and gingival crevicular fluid (GCF) inflammatory markers were also examined.

Results: one year later, both therapies showed improvement in periodontal parameters compared to the baseline. Nevertheless, when compared to SRP alone, SRP + diode laser significantly improved the results for probing depth (PD; 2.56 - 0.44 *vs* 3.36 - 0.51 mm, $p < 0.05$) and CAL (3.47 - 0.25 *vs* 4.11 - 0.26 mm, $p < 0.05$).

Similar to the SRP alone group, the bacteria of the orange complex group greatly decreased in the SRP + diode laser group at 30 and 60 days.

Additionally, IL-1b/IL-10 ratio and mean GCF levels of IL-1b were lower with SRP + diode laser than with SRP alone at 15 and 30 days ($p < 0.05$).

Conclusions: at the end of the study, it was seen that SRP + diode laser substantially reduced some clinical parameters, but SRP alone had no significant effect on changes in microbial or inflammatory mediator levels.

EVALUATION OF ORAL HEALTH IN BREAST CANCER PATIENTS TREATED WITH ADJUVANT HORMONE THERAPY

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Aim: the study aims to investigate the oral health status in a cohort of female patients affected by breast carcinoma and treated with adjuvant hormone therapy (AHT).

Methods: a total of 128 patients with breast cancer treated with AHT and 60 controls, were prospectively enrolled in the study, from 2019 to 2021, at the "Maggiore della Carità" Hospital, University of Eastern Piedmont (Novara). The Decayed, Missing and Filled Teeth (DMFT) index and the oral microbial profile were evaluated. Salivary samples were collected between 11-12 a.m., through the standardized "spitting" collection method to analyze the Unstimulated Whole Saliva Flow Rate (UWS-FR) and the salivary pH. Finally, each subject undergoing to oropharyngeal swab to assess the oral microbial status.

Results: the DMFT value of cancer patients was significantly higher compared to control group (16.07±7.05 *vs* 11.93±7.14; $p = 0.0077$). A reduction of UWS-FR was detected in the cancer patients respect to the control group (0.23±0.17 mL/min *vs* 0.29±0.17 mL/min; $p = 0.014$). No significant differences emerged in the evaluation of pH values (6.78±0.37 *vs* 6.76±0.34; $p > 0.05$). Finally, a negative association between oral candidiasis and UWS-FR was demonstrated in cancer patients ($p = 0.0254$).

Conclusions: these results suggested the AHT could affect oral health status, impairing the oral cavity homeostasis and increasing the risk of developing hard and/or soft tissue diseases.

EVALUATION OF TWO DIFFERENT MOUTHWASHES ON BLEEDING REDUCTION: A RANDOMIZED CLINICAL TRIAL

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Aim: the objective of this study was to compare the efficacy and safety of three different mouthwashes on gingival bleeding after 2 weeks of use.

Methods: in this randomized, double-blind parallel-design clinical study, the eligible subjects, who fulfilled the inclusion criteria, were divided into the following three groups: Group C (control, mouthwash with Chlorhexidine 0.12%); Group CX (test, mouthwash with Chlorhexidine 0.09% and Citrox®); Group P (test, mouthwash containing natural extracts). Subjects were instructed to brush their teeth twice a day without changing their habits associating the use of the assigned mouthwash. The analyses compared bleeding on probing (BOP) in the buccal and palatal/lingual tooth sides of maxillary and mandibular teeth (6 sites per tooth). A questionnaire was submitted to patients to assess any side effects. Pairwise comparisons between groups were performed at T_0 (baseline) and T_1 (after 2 weeks) ($p < 0.05$).

Results: The BOP scores decreased in all groups between T_0 and T_1 (relative variations from -12% to -6%). Within the groups, the reduction of the BOP scores occurred differently depending on the side and the area of the tooth evaluated. In particular, Group C and Group CX showed a decrease of BOP scores in palatal sites in T_1 compared to T_0.
Instead, Group P highlighted the highest BOP score reduction in the buccal sites both in maxillary and mandibular teeth. No side effects were noticed for any patient throughout the study period.

Conclusions: to reduce gingival inflammation, all the mouthwashes tested showed comparable results in terms of BOP scores decrease when used as an adjunct to mechanical oral care.
Clinical Trials Registered as ACTRN12622000215729, 7 February 2022.

EFFECT OF PLAQUE DETECTORS ON THE COLOR STABILITY OF A GLASS-IONOMER CEMENT

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Aim: to investigate the color stability of a glass-ionomer cement (GIC) after staining with 2 plaque detectors (PDs) with different composition and delivery forms.

Methods: twenty rectangular-shaped specimens (7 x 3 x 2 mm) were produced with a glass-ionomer cement (GIC; Fuji IX GP, GC Corp.). Color evaluation at baseline (T_0) was performed with a novel digital colorimeter (Smart_Color, Smartvision). The following PDs were used (n = 10): 1) Tablets (T; Plaq-Search™, TePe) and 2) Mouthwash (M; Plaque Agent, Miradent). The PDs were washed out according to manufacturers' instructions with a disposable toothbrush per each specimen. Color parameters were retaken after washing (T_1) as well as after polishing (T_2). The same protocol (T_{01}, T_{11} and T_{21}) was repeated after 1 week. Color changes (ΔE_{ab}) measurements at the different testing times were automatically recorded by the digital colorimeter. Data were statistically analyzed ($p < 0.05$).

Results: the type of PD, the polishing procedure and their interactions influenced the color stability of the GIC tested ($p < 0.001$). M resulted in higher color changes than T ($p < 0.05$). Repolishing could not reestablish the initial color of GIC, irrespective of the PD used ($p < 0.05$).

Conclusions: the use of plaque detectors can influence the color stability of the GIC tested in a material-dependent way, with the color changes increasing with the number of applications. Discoloration was maintained even after repolishing. From an esthetic point of view, this is clinically relevant, thus requiring further studies in this direction.

LEVEL OF DEPRESSION AND ANXIETY IN PATIENTS WITH ORAL POTENTIALLY MALIGNANT DISORDERS AWAI

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Aim: waiting for a biopsy is an unpleasant psychological experience; the patient, while in the waiting room, often fills the wait with intrusive and anxious negative thoughts. The purpose of the present open trial was to assess patients' anxiety and depression while waiting for an incisional biopsy in the oral oncology setting.

Methods: this open trial included 25 consecutively recruited patients with clinical suspicion of oral potentially malignant disorders (OPMD). The patients were administered the Beck Depression Inventory (BDI) and the Depression Anxiety Stress Scales-21 (DASS-21), and immediately thereafter underwent oral biopsy.

Results: most of the recruited patients were women (17/25, 68%), and most patients were aged between 40 and 60 years (14/25, 56%). There were 10 ex-smoker (40%), while 8 patients had never smoked (32%). The BDI and DASS-21 mean scores were 13,5 (±10,3) and 16,4 (±7,55), respectively. The BDI scores underlined a mild level of depressive anxiety, while the DASS-21 scores highlighted a moderate level of anxiety and a mild level of stress. Worthy of note, the higher BDI scores were registered on the questions regarding the "loss of interest in sex" and the "changes in sleeping".

Conclusions: the suspicion of a cancer diagnosis is probably one of the most stressful events an individual can face in his or her life. Clinicians should be aware that even a simple oral surgical procedure, such as an incisional biopsy, can evoke moderate or mild levels of anxiety and stress in patients.

STUDENT IN THE MEDICAL FIELD AND COVID-19 VACCINATION COMPLIANCE

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Aim: regardless of how vaccines are distributed among various age groups, vaccination skepticism remains a significant obstacle to the success of vaccination campaigns around the world.

Several studies conducted in various countries have reported a significant reluctance to administer the anti-Covid-19 vaccine. Aim study is to evaluate the attitude of students in the medical field towards the administration of the anti-SARS-CoV-2/COVID-19 vaccine.

Methods: the survey starts with an online questionnaire on the Google Forms platform. A link was created and disclosed via academic communication channels. The questionnaire consists of 59 questions divided into 4 sections.

Results: as of October 26th, responses from 334 students, 91 male and 243 female, had been received. Only 4 students report that they have not received the Covid-19 vaccine. Indeed, most of the students believe that the vaccine is effective and consider it their duty, as future healthcare professionals, to be informed about the Covid-19 vaccine for the health of their patients.

Conclusions: the results show a positive attitude. Most of the students were willing to get vaccinated as soon as the vaccine became available, since they believe in its effectiveness and its importance for their own and their patients' health. As an integral part of the healthcare team, students in the medical field play an important role in providing information about coronavirus and vaccination and in shaping preventive behavior in the population.

MEDICAL STUDENTS AND THE INFLUENCE OF THE PANDEMIC ON THEIR MENTAL HEALTH

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Aim: it is known that healthcare students have higher rates of depression, anxiety and stress than the general population. The objective of this study is to evaluate the effects of the pandemic on healthcare students' psychological condition, since COVID-19 is considered an additional source of stress.
Methods: the survey starts with an online questionnaire on the Google Forms platform. A link was created and subsequently disclosed via academic communication channels. The questionnaire consists of 59 questions divided into 4 sections.
Results: as of October 26th, responses from 334 students (91 male and 243 female) had been received. The most frequent moods during the lockdown and after Covid-19 were loneliness, resignation, anxiety, boredom, nervousness, sadness, stress, insecurity and intolerance associated with an increase in states of muscle tension and bruxism and daily consumption of cigarettes and alcoholic beverages.
Conclusions: these findings highlight the need for better surveillance of students' psychological health through both professional counseling educational platforms and the collaboration with psychologists and mental health therapists, in order to address issues related to post-pandemic negative consequences and moods.

KNOWLEDGE, GYNECOLOGY AND OBSTETRICS' ATTITUDES TOWARDS THE ORAL HEALTH OF PREGNANT WOMEN

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Aim: aim of the study is to investigate gynecology and midwifery students' knowledge and their attitudes towards pregnant women's oral health, as well as to find an inter collaboration between the professional figures who accompany the pregnant woman throughout the entire gestation, childbirth and postpartum process, in order to promote oral health.
Methods: the survey was conducted with the administration of an anonymous questionnaire divided into 5 sections concerning oral health and its implications during pregnancy on the Google Forms platform.
Results: the response rate obtained is 38.8%. 78.2% of participants reported that they had never conducted an oral health assessment on pregnant women during prenatal visits, as they stated that they did not have adequate preparation and the skills to carry out relevant assessments. The results of this study revealed that the participants have little knowledge of oral health during pregnancy and fear that dental procedures may have negative side effects on the fetus and/or newborn.
Conclusions: the study shows the willingness among students to deepen their knowledge of oral health, since they believe it could be useful in their training and in their daily clinical practice. To this end, it would be appropriate to include lessons and seminars related to oral health in the training course of students of the Obstetrics degree course.

ORAL HYGIENE EDUCATION FOR SPECIAL NEEDS PATIENTS' PROPOSAL FOR HEALTH MINISTRY

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Aim: to evaluate the oral health status of children with special healthcare needs having either systemic illness or any disabilities.

Methods: a retrospective analysis of oral health status was done from Sept 2020 to Dec 2022 on 128 (both genders) up to 12 years of age. The oral health status of patients was assessed with the decayed, missing filled teeth (DMFT) indices and simplified oral hygiene index (OHI-S) by using the World Health Organization 2013 oral health survey criteria.

Results: fair oral hygiene was present (65%) among all the subjects. Association between oral hygiene status and systemic illness/disability was done using the Chi-squared test was found statistically nonsignificant. The overall mean DMFT found was 4.16. The highest mean DMFT score was recorded in nephrotic syndrome patients (16.0%), while the least score was seen among cleft anomalies (1,56%). Comparison between mean DMFT scores among various systemic illnesses/disabilities were done using Kruskal-Wallis one-way analysis of variance (Kruskal-Wallis ANOVA) test and found statistically significant (*p*-value 0.048).

Conclusions: the majority of the CSHCN fall under fair oral hygiene status. A high caries prevalence and statistically significant value were demonstrated between mean DMFT scores of various systemic illnesses/disabilities. Present study aids in understanding the needs of the community, identifying high-risk groups, planning the required treatment and prevention strategies, and thus monitoring and improving the oral health status of children with special healthcare needs.

DIABETES AND PERIODONTITIS: WHAT IS THE DENTIST'S ROLE? A NARRATIVE REVIEW

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Aim: diabetes and periodontitis are two chronic diseases with high prevalence and consistently increasing incidence; moreover, the two-way association between them is of particular interest. This narrative review aims at summarizing the evidence found in literature pertaining to such a relationship and the implication it has on dentists' role in managing their patients' overall health in synergy with other healthcare professionals.

Methods: a literature search has been conducted on PubMed, selecting articles published in the last 20 years pertaining to the association between periodontal disease and diabetes and the dentist's role. Furthermore, the websites of some national and international scientific societies of periodontology and diabetology have been consulted.

Results: 10 scientific works have been selected. They indicate that diabetes is a risk factor for periodontal disease, while the inverse association is still a subject of debate. The potential that dentists and their team have in preventing diabetes, for example by educating the patient, and in interacting with other professionals, such as the diabetologist or the general practitioner, is certain.

Conclusions: dentists should have a prominent role in primary and secondary prevention of diabetes, in addition to that of periodontal disease. However, more studies are needed in order to clarify the interactions between the two diseases and the importance of dentists in this multidisciplinary field of great importance to public health.

OZONIZED HYDROGELS *VS* 1% CHLORHEXIDINE GEL FOR THE MANAGEMENT OF PERI-IMPLANT MUCOSITIS

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Aim: the new classification of periodontal and implant disease of 2017 defined peri-implant mucositis as a reversible inflammatory process of the peri-implant tissues characterized by bleeding on delicate probing without bone loss. Ozone therapy is extensively studied for its effectiveness in treating various dental conditions. To date, few studies have evaluated ozone as an adjunct to oral hygiene measures in patients with peri-implant mucositis. The aim of the present study is to evaluate the efficacy of an ozonated gel (test group) compared to chlorhexidine (control group) after a home oral hygiene protocol in a 6-month study.

Methods: According to a split-mouth study design, patients were divided into Group 1 for the application of chlorhexidine gel in the peri-implant mucositis sites of quadrants Q1 and Q3, while in quadrants Q2 and Q4 the ozonated gel was administered in the studio. For group 2, the dials were reversed.

Results: at baseline (T_0) and after 1 (T_1), 2 (T_2) and 3 (T_3) months, Probing Depth (PD), Plaque Index (PI), SI Suppuration Index (SI), Bleeding Score (BS) and condition of the marginal mucosa (MMC). A statistically significant distinction was found for all variables evaluated in each group ($p < 0.05$), while significant differences between groups were found only for PI, BoP and BS.

Conclusions: consequently, both agents tested in this study showed efficacy in the treatment of peri-implant mucositis. Particular attention deserves the ozonized gel, which is considered the best result compared to chlorhexidine on specific periodontal clinical parameters, as well as its minor defects.

PRELIMINARY STUDY ON EFFECTIVENESS OF POSTBIOTICS IN PATIENTS WITH DOWN SYNDROME

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Aim: evaluation of the domiciliary effectiveness of a postbiotics based soothing gel, compared with placebo gel devoid of active substance, in patients affected by Down Syndrome. A randomized controlled Pilot Study.

Methods: after signing the informed consent, patients satisfying the inclusion criteria will undergo supragingival and subgingival professional oral hygiene of both arches (T0). After that, the following treatment will be randomly assigned:
Biorepair Plus Parodontgel Intensive (Coswell S.p.A.) intensive soothing gel based on microRepair®, Hyaluronic Acid, Lactobacillus Ferment and *Aloe Barbadensis* Leaf Juice Powder, applied on the gingival tissues once a day until the next recall.
Placebo Gel without any active substance, applied on the gingival tissues once a day until the next recall.
Patients will be visited at: T_0, after 1 month from T_0 (T_1), after 3 months (T_2) and after 6 months (T_3). At each recall session, the following periodontal clinical indices will be collected using a probe on each periodontal site: BOP (Bleeding on Probing), PCR% (Plaque Control Record), MGI (Modified Gingival Index), level of compliance and satisfaction questionnaire of the product. At T_3, professional hygiene will be performed again.

Results: the patients investigated so far have been 10:4 at T_0, 2 at T_1 and 4 at T_2.

Conclusions: the preliminary data shows a moderate reduction in all the indices taken into consideration especially the bleeding index in patients treated with postbiotics compared to the control group. However, a larger sample size is needed to finalize a pilot study.

ACCESS TO ORAL CARE FOR PEOPLE WITH DISABILITIES DURING THE COVID-19 PANDEMIC

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Aim: the impact of the COVID-19 pandemic on dental care for subjects with different types of disabilities is still unclear. This single-center retrospective study aims at analyzing possible changes in the number and type of dental therapies provided in subjects with mental, physical and systemic disability before (year 2019) and during the COVID-19 pandemic (year 2020).

Methods: the study included patients with disabilities referred at the Gorizia-Monfalcone Dental Unit during the years 2019 and 2020. Demographic and clinical characteristics, as well as the type of treatments provided were recorded. Statistical analysis was performed employing Mann-Whitney U test and Chi-squared test.

Results: the total number of patients with disabilities referred before and during pandemic was similar (157 patients in 2019, 144 in 2020). There was a significant increase in the access of patients with cognitive disability and with low compliance ($p = 0.0146$), and a decrease in the number of patients with systemic frailty ($p = 0.0012$). Mean age of patients was significantly lower in 2020 ($p < 0.0001$). The total number of dental interventions was lower in 2020 and were mainly non-deferrable treatments.

Conclusions: the COVID-19 pandemic had a significant impact on oral treatments in patients with disabilities. While we didn't observe a decrease in the access to dental care, we observed significant changes in the type of disability, age of patients and the number and type of dental treatments that were performed.

SIMULTANEOUS DETECTION OF HUMAN CORONAVIRUSES (HCOVS) IN 1195 PATIENTS BY MULTIPLEX PCR

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Aim: in this study, we evaluated the performance of a multiplex rRT-PCR able to detect seven HCoVs simultaneously. We tested 1195 clinical samples with suspected to COVID-19.

Methods: SARS-CoV-2 RT-PCR kit available in our laboratory.

Results: the assay identified 69% of SARS-CoV-2 positive samples.

Conclusions: firmed that the multiplex rRT-PCR is a sensitive assay, time and cost-saving. These aspects make the assay a good approach be used for large-scale screening studies, for rapidly detected SARS-CoV-2 and other HCoVs relevant to human health.

HUMAN MONKEYPOX: ORAL IMPLICATIONS, SCREENING AND INFECTION CONTROL IN THE DENTAL SETTING

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Aim: on June 23, 2022, the World Health Organization classified Human Monkeypox Virus (MPXV) as an "emerging threat of moderate health concern". While approximately 25,800 and 30,200 cases of Monkeypox (MPX) were reported in Europe and the United States, respectively, till February 2023, the number of cases is still relatively small compared with the number of patients treated annually by dentists. Consequently, the likelihood of oral health care workers in non-endemic regions encountering an MPX case is low. However, MPX risk factors, clinical presentation, transmission routes and clearance, and the associated risk in the dental setting, remain uncertain, the present narrative review synthesized epidemiological and clinical data

available to provide specific recommendations for infection control and oral and dental management of MPX cases.
Methods: relevant evidence was narratively reviewed.
Results: MPX cases with manifestations limited to the head and neck region may require oral and dental care because they complain of cervical lymphadenopathy.
Moreover, MPX lesions may initially appear in the oral cavity or perioral area.
Appropriate preventive measures should be taken to minimize cross-infection risks in the dental setting.
Conclusions: given the recent spread of MPXV to non-endemic regions where dentists may not usually include the disease in their differential diagnosis or take appropriate preventive measures, oral healthcare providers need to be aware of the oral presentation of MPX for appropriate oral screening and infection control measures in the dental setting.

THE EFFECT OF NON-FLUORIDE AND FLUORIDE TOOTHPASTES ON TOOTH SURFACE ROUGHNESS

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Inside the oral cavity, variations in salivary pH are the main cause of tooth enamel erosion and demineralization. For this reason, the application of materials such as non-fluoride toothpastes and fluoride toothpastes is recommended. The aim of this *in vitro* study is to evaluate the effect of a non-fluoride toothpaste and a fluoride toothpaste on tooth surface roughness and their ability to protect against erosion. The acid attack simulation was performed on six caries-free human teeth, extracted for periodontal reasons, using a carbonated drink. The samples were immersed in 5 ml of carbonated drink for 2 minutes at room temperature and rinsed with distilled water. The immersion process was repeated 4 times for a total of 8 minutes. Subsequently, the toothpastes were applied for 3 minutes at 0, 8, 24 and 36 hours without brushing to cover the entire enamel surface and then rinsed with distilled water to test their effect on surface roughness. A second cycle of acidification was then carried out with the consequent reapplication of both products to evaluate their ability to protect against erosion. The samples were then analyzed with a scanning electron microscope (SEM) and a profilometer. Both toothpastes have shown to be able to restore surface roughness to values comparable to the initial ones. Surface roughness remained unchanged after the second acid attack only in the teeth treated with fluoride toothpaste. Fluoride toothpastes have been shown to be better at protecting against acid attack demineralization than non-fluoride ones.

CARIES PREVENTION IN HEAD-NECK CANCER PATIENTS WHO RECEIVED RADIOTHERAPY

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Aim: among the most frequent side-effects of head and neck radiotherapy (RT), there are radiation-induced caries, correlated to the direct effects of RT on dental hard tissues and to hyposalivation. Their frequency depends on the dose and localization of RT received. Nowadays, fluoride, together with correct oral hygiene and dietary habits, is considered a key-point for the prevention of carious lesions. Calcium phosphate-based products could be of help in supporting remineralization in case of severe hyposalivation. The aim of this study is to evaluate the effectiveness of a topical product, based on the calcium phosphate mousse, added to topical fluoride, in reducing the incidence of radiation-induced caries.
Methods: this study is a randomized clinical trial with two parallel arms on 20 head and neck cancer patients who received RT (15 women, 5 men). Ten patients were treated with topical fluoride only (control group) and 10 patients with fluoride plus the calcium phosphate mousse (test group). Patients were recalled every 3 months for dental examination; full mouth plaque score (FMPS) and DMFT index were collected.
Results: at 6 months recall, DMFT index remained stable in the test group (only 1 new carious lesion was found), while increased in the control group (3 new carious lesions were found). In both groups a reduction of full mouth plaque score was observed.

Conclusions: these preliminary results suggest that calcium phosphate-based products, added to topical fluoride, could be promising to prevent the onset of radiation induced-caries.

ORAL-HEALTH RELATED QUALITY OF LIFE (OHQOL) IN PATIENTS WITH COGNITIVE IMPAIRMENT

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Aim: compromission of oral health is one of the main factors that may affect geriatric patients presenting cognitive impairment (CI). However, there is a lack within scientific literature of studies assessing the oral-health related quality of life (OHRQoL) within this population. Therefore, the aim of the present study was to evaluate the relationship between OHRQoL and oral health status, in terms of periodontal condition, in subjects affected by mild-to-moderate CI.

Methods: a total of 80 patients with mild-to-moderate CI and 80 controls matched by age and gender were enrolled in the present study. 36-Item Short Form Health Survey (SF-36), Oral Health Impact Profile (OHIP 14) and General Oral Health Assessment Index (GOHAI) were carried out. In addition, the periodontal status was assessed by staging and grading.

Results: a poorer OHRQoL was appreciated in the CI group compared to the controls (OHIP-14 total score: $p < 0.005$, GOHAI total score: $p < 0.005$). In addition, the general quality of life (QoL) of CI patients was significantly impacted as resulted in SF-36 sub-items. Higher scores of periodontal disease were recorded in the CI group, demonstrating a poorer oral health status than controls (p-value: 0.023).

Conclusions: within the limitation of the present study, it could be concluded that CI patients presented a poor OHRQoL and oral health status that might enhance the psychological impairment.

Oral health care needs to be improved within geriatric patients, promoting prevention and early diagnosis of oral diseases and increase of the prognosis and patients' QoL.

STUDENTS' ATTITUDE TOWARDS HIV. PRELIMINARY REPORT FROM ITALIAN SCHOOLS OF ORAL MEDICINE

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Aim: fear of infection and poor knowledge of the actual risks of transmission lead some healthcare professionals to discriminate infected patients by not providing the necessary care and sending them back to public facilities or other professionals.

Methods: anonymous questionnaires were given to 470 students. The survey is divided in 4 sections. The first one collects demographic data of students. The second section deals with the relationship between students and HIV patients and it is divided in three subsections based on the student's response to the request to treat an HIV positive patient (agreed, refused or not asked). The third section evaluates the student's knowledge about HIV infections and the fourth one regards the application of hygiene protocols to avoid operator exposure and cross infections and the need to implement information on the relationship between dentists and HIV-positive patients by professional bodies or universities.

Results: the data has proved that from half of the participants, who were required to treat patients with HIV, nearly everyone agreed to treat them, except from 3 participants who, for fear of being infected or infecting their colleagues, refused to. Even among students who have not been asked to treat HIV-positive patients, the will to treat seropositive patients prevails.

Conclusions: after discussing the data from the questionnaires, it emerges that the preparation of students, both practical and theoretical, regarding HIV infection is valid and sufficient to allow the treatment of these patients without discrimination.

PREVALENCE OF ODONTOMA IN PATIENTS WITH IMPACTED TEETH: A RETROSPECTIVE STUDY

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Aim: the aim of this study is to determine if exists a correlation between the prevalence and position of odontoma and the occurrence of delayed or impacted teeth.

Methods: a retrospective study was conducted to collect demographic and clinical data of patients who presented odontomas from 1995 to 2022. Forty-five patients (mean age 14.2 years) with 29 complex and 16 compound odontomas were included in the study. The initial symptoms observed were delayed eruption of permanent teeth (n = 25), pain (n = 6), swelling (n = 4), and no symptoms (n = 10). The presence of odontoma was discovered through panoramic radiographs in all patients. The mandible to maxilla ratio was approximately 2:1 (31/15).

Results: out of 45 patients, 31 were diagnosed incidentally, with all patients being discovered via panoramic radiographs. Thirty-two out of 45 odontomas were in close proximity to at least one tooth (n = 21 at incisive).

A total of 12 teeth were extracted (complex: n = 8; compound: n = 4). Of the non-extracted teeth, 33 were displaced and retained.

Of those, 29 were successfully aligned through an orthodontic-surgical approach, and 4 teeth erupted spontaneously after surgery during the follow-up period.

Conclusions: an early detection of odontoma is more likely an accidental radiological finding, hence the need for routine radiographic analysis should be emphasized.

Early diagnosis of odontomas in primary dentition is crucial in order to prevent later complications, such as impaction or failure of eruption of teeth.

CIRCULAR ECONOMY TO ORAL HEALTH: EFFECTS OF BWPF FROM BREWING PROCESS ON *LACTOBACILLUS*

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Aim: the aim of this study is to evaluate the effect of bioactive wastewater phenolic fractions (BWPF) natural compounds, on *Lactobacillus casei*.

Methods: the total phenolic content obtained from the brewery wastewater process was determined by the Folin-Ciocalteu assay, as reported from our previous experience in the field. The effect of BWPF on the growth of *Lactobacillus casei* was assessed by the growth curve assay. Moreover, the effects of the phenolic fraction on acid production and biofilm were measured according to standard methodology.

Results: the experimental results indicated that BWPF can inhibit *Lactobacillus casei* biofilm formation as well as acid production activity and may contribute to a rise in the cytoplasmic acidity, followed by decreasing acid adaptation.

Conclusions: natural products represent an essential source in the discovery of such new drugs. The brewery industry generates wastewater that could yield a natural extract containing BWPF compounds.

Few Lactobacillus species represent a major contributor to caries progression due to their ability to produce lactic acid as a by-product of glucose metabolism. In the circular economy era, waste compounds offer great potential for developing and producing customized oral dosage forms using available sources.