

## ABSTRACTS OF POSTER PRESENTATIONS

FIELD OF DENTISTRY: General dental practice

Type of presentation: poster presentation

### THE IMPORTANCE OF THE DENTIST IN THE DIAGNOSIS OF PARANASAL SINUS CYSTS (MUCOCOELE) – CASE REPORT

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#### ABSTRACT

**Introduction:** Cysts in the paranasal sinuses can be defined as benign growths filled with liquid. The most common cyst occurring in the maxillary and frontal sinus is a mucocele. Mucocele is a benign change filled with mucus.

**Material and method:** Patient Č.S. (14 years old) comes to the dental clinic with an escort mother, after several months of inability to establish adequate diagnostics for her health problem. Hetero-anamnestic, the mother states the presence of pain and swelling in the upper jaw area on the left side, backwards for a long period of time. Intense headaches are present creating emotional difficulties with anxiety symptomatology. Clinical examination established the existence of all permanent teeth with the absence of advanced caries lesion. The patient is referred for an OPG scan showing a radiological change in the lumen of the maxillary sinus on the left side, suspicious for a mucocele. According to the radiological findings, the patient is referred to maxillofacial surgery, where an operation and PH verification is performed confirming the referral diagnosis (mucocele).

**Result:** Through this case presentation, we see the importance of including dentists in diagnostics and therapeutic protocol in order to provide adequate therapy to the patient in a timely manner.

**Conclusion:** Interdisciplinary cooperation is important in order to establish a precise diagnosis when working with patients and dentists are an important link in the health system.

**Key words:** cyst, maxillary sinus, OPG, mucocele

FIELD OF DENTISTRY: Preventive Dentistry

Type of presentation: poster presentation

### NUTRITION AND ORAL HEALTH

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#### ABSTRACT

A diet rich in carbohydrates, proteins and minerals is important for the normal functioning of a healthy human organism. Nutrition and oral health are connected in many ways. Inadequate nutrition can affect oral health including caries, periodontal diseases, diseases of the oral mucosa and infectious diseases, and it is also important in craniofacial development. Diet affects teeth during development and malnutrition can worsen periodontal and oral infectious diseases. However, the most significant effect of nutrition on teeth is the local effect of nutrition in the mouth on the development of caries and enamel erosion.

Some research suggests that adults who are dieters, vegetarians and vegans have an increased risk of periodontal problems and tooth decay, as well as dental erosion.

The aim of this work is to link nutrition, oral health and oral diseases and to present dietary and dental habits that will prevent negative outcomes.

The paper was written by reviewing and analyzing the relevant literature of scientific works. We used relevant scientific data published in journals that were downloaded from PubMed, ResearchGate, Google Scholar and other databases.

Diet protocols, if not implemented in the right way, can lead to eating disorders (bulimia nervosa, anorexia nervosa). Therefore, it is necessary to notice the symptoms of eating disorders in time, to establish fast and aggressive therapy before more serious forms of disorders and irreversible physical damage develop.

Doctors of dental medicine play an important role in the early detection of eating disorders because the first symptoms most often appear orally and extraoral.

**Keywords:** nutrition, oral health, diet, oral diseases

FIELD OF DENTISTRY: preventive dentistry

Type of presentation: poster presentation

## DENTAL HEALTH CARE IN THE PUBLIC SECTOR OF THE FEDERATION OF BOSNIA AND HERZEGOVINA FOR THE PERIOD 2020–2022

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### ABSTRACT

**Introduction and aim:** Dental health care in the FBiH is organized through three levels - primary, specialist and tertiary health care and is provided in both the public and private sectors. This analysis is based on official data from the Institute for Public Health of the Federation of Bosnia and Herzegovina and their official publications.

**Results:** In the public sector, there are 557 dentists employed (which represents 26 dentists per 100,000 inhabitants) and 624 dental nurses/technicians (29 per 100,000 inhabitants). The average number of inhabitants per dentist was 3,872. The highest number of inhabitants per dentist was recorded in the Zeničkodobojski Canton (7,492) and the Unsko-sanski Canton (7,285), while the lowest number was in the Sarajevo Canton (1,741). In 2022, a total of 789,529 visits to dental services in the public sector were recorded, which is an increase compared to previous years. On average, there were 5.2 visits per day per dentist. The highest average number of visits per dentist was in the Bosansko-podrinjski Canton (9 visits per day), while the lowest average number of visits per dentist was recorded in the Unsko-sanski, Centralnobosanski, Hercegovačko-neretvanski, Zapadnohercegovački and Canton 10 (an average of 4 visits per day). The ratio of the first to follow-up visits in dental care was 1:1.4. This statistic indicates a stable ratio between new patients and those coming for follow-up exams and treatments.

**Discussion and conclusion:** The display of the average number of daily visits per dentist for the period 2020 to 2022 by cantons shows variations in the workload of dentists in different parts of the FB&H, which may indicate a need for better resource allocation and health policy planning.

Keywords: dental health care, public sector

FIELD OF DENTISTRY: preventive dentistry

Type of presentation: poster presentation

## ANALYSIS OF ORAL HEALTH IN THE FEDERATION OF BOSNIA AND HERZEGOVINA: REGISTERED DISEASES

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### ABSTRACT

**Introduction:** The World Health Organization considers various oral conditions, such as dental caries, periodontal diseases, tooth loss and orodental trauma to be serious public health problems. Oral diseases impose a significant burden and economic cost on the health system. **Aim:** The analysis of diseases related to oral health is based on official data from the Institute for Public Health of the Federation of Bosnia and Herzegovina.

**Results:** In 2022, at the level of primary health care, 494,767 diseases, conditions and injuries were registered in the public sector being 2.9% less compared to 2021. The most common disease is dental caries accounting for 38.7% of all diseases with a rate of 889 per 10,000 inhabitants. Among men, caries accounts for 46.8% (rate of 847/10,000) and among women, 53.2% (rate of 928/10,000). The second most common disease is pulp and periapical tissue diseases, accounting for 28.4% with a rate of 652 per 10,000 inhabitants. In all age groups, the leading diseases are dental caries and pulp and periapical tissue diseases. Dentofacial anomalies, including malocclusions, are highly ranked among children up to 4 years and the age group of 5-19 years.

**Discussion and conclusion:** These data indicate stable trends in dental diseases and highlight the need for continuous prevention and education in the field of dental health. To improve the oral health of the population, it is necessary to systematically and comprehensively implement existing preventive measures, as well as design new preventive programs based on educational activities aimed at developing a sense of full responsibility in each individual.

**Keywords:** dental health care, diseases in dental health care

FIELD OF DENTISTRY: Pediatric dentistry  
Type of presentation: Poster presentation

## AMELOGENESIS IMPERFECTA

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### ABSTRACT

**Introduction:** Amelogenesis imperfecta is a hereditary enamel malformation. The clinical picture is characterized by generalized enamel defects, both in primary and permanent dentition. It is believed to be the result of a mutation at the level of the genes responsible for amelogenesis. It is inherited as an autosomal dominant, recessive or X-linked type of inheritance. Clinically, it appears as a hypoplastic, hypo-maturational, hypocalcification and combined hypo-maturational-hypoplastic form associated with taurodontism. The frequency of AI is 1:14,000.

**Materials and methods:** a seven-year-old boy accompanied by his mother comes to the children's and preventive dentistry office at the Stari Grad Health Center. Hetero-anamnesis shows that the boy's baby teeth started crowning very soon after they erupted. Clinically, the baby teeth are presented without enamel, the first central incisors had hypomineralization and post-eruptive enamel fractures. In the therapy plan, we have considered minimal invasive conservative treatment of central incisors. And after assessing the condition of the first permanent molars and establishing better cooperation of the child, they will be treated with steel crowns.

**Conclusion:** the presence of amelogenesis imperfecta represents a kind of challenge for the clinician. An interdisciplinary approach is necessary to restore function, aesthetics and phonetics to the patient.

**Keywords:** amelogenesis imperfect, defect enamel, hereditary, treatment

FIELD OF DENTISTRY: Pediatric dentistry  
Type of presentation: Poster presentation

## DENTINOGENESIS IMPERFECTA (DENTIN DYSPLASIA OR HEREDITARY OPALESCENT DENTIN) – CASE REPORT

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### ABSTRACT

**Introduction:** Dentinogenesis imperfecta is a hereditary anomaly of the tooth structure. If it is not associated with osteogenesis imperfecta, it can be characterized as hereditary opalescent dentin. It is characterized by the opalescent color of the teeth, the teeth are gray-blue or brownish like amber with square or bell-shaped crowns that very quickly abrade to the level of the gingiva.

**The aim of the work:** The aim is to show the characteristic appearance of this structural anomaly for easier diagnosis in practice.

**Materials and methods:** A fourteen-year-old female patient accompanied by her mother came for an examination at the children's preventive dentistry office. The clinical examination showed permanent dentition teeth with an opalescent appearance, brownish color like amber, which is the pathognomonic appearance of teeth in dentinogenesis imperfecta. Heteroanamnestically, we get the information that the patient's mother and older sister had the same structural anomaly, while it did not manifest itself in the twin sisters.

**Conclusion:** Dentinogenesis imperfecta occurs in one in 6000-8000 children and it can be said that it is rarely encountered in clinical practice. We hope that this case report will help fellow clinicians in making a diagnosis.

**Keywords:** Dentinogenesis imperfecta, hereditary anomaly, opalescent, characteristic, rarely

FIELD OF DENTISTRY: Pediatric dentistry  
Type of presentation: poster presentation

## ENDODONTIC TREATMENT OF DECIDUOUS TEETH WITH CLINICALLY POOR PROGNOSIS

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### ABSTRACT

**Introduction:** Faster caries progression in deciduous teeth easily leads to pulp infection. For this reason, pulp diseases in deciduous dentition are very common, mainly in the form of chronic asymptomatic infections. The standard endodontic procedures such as pulp extirpation, pulpectomy, partial pulpectomy, etc., require full cooperation with patient. LSTR is a method of sterilization of lesions and tissue repair based on the repair of pulp and/or periodontal tissue of deciduous teeth under the action of a combination of antibiotics. The technique does not include root canal instrumentation. The LSTR method is one of the good endodontic therapeutic alternatives for affected deciduous teeth with a poor prognosis, which would otherwise lead to premature extraction. Aim of this research was to evaluate the clinical success of the LSTR method in daily clinical practice being applied to affected deciduous teeth with irreversible pulp tissue infections and poor prognosis, and to observe the reduction/absence of their clinical and radiological symptoms.

**Material and methods:** The sample consisted of patients who had one of their deciduous molars treated with the LSTR technique. Each patient was clinical and radiological evaluated.

**Results:** Already after the initial treatment, a significant reduction in clinical complaints was observed. At the follow-up examination 12 months later the initial treatment with the LSTR method, the clinical and radiological success of the method was over 95%.

**Conclusion:** The LSTR method as a non-instrumental endodontic technique in the treatment of irreversible pulpal infections of deciduous molars with a poor prognosis showed success in clinical and radiological follow-up for 12 months.

**Keywords:** deciduous molars, endodontic treatment, LSTR.

FIELD OF DENTISTRY: Pediatric dentistry  
Type of presentation: poster presentation

## ORAL HEALTH STATUS IN CHILDREN AT PUBLIC KINDERGARTENS OF CANTON SARAJEVO

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### ABSTRACT

**Introduction:** Dental caries as multifactorial disease firstly appears in form of early childhood caries. Preschool children due to difference in structure of enamel and dentin, and inadequate parental care and lifestyle as well, are sensitive category when it comes to the occurrence and development of dental caries. Preventive measures at this age have big potential for reducing risk for transmitting dental caries on permanent dentition. Aim: To show oral health status at children of preschool age and educate their parents and teachers at public kindergarten.

**Patients and methods:** This study included preschool children aged from 3 to 6 years with their oral health status evaluated according to the WHO Oral health Survey guidelines within the 2-year period. Their parents and kindergarten teachers were educated simultaneously.

**Results:** Oral health status slightly worsened in 2023 compared to 2022. Oral treatment care indexes have increased in 3- and 4-year-old children, while at the same time decreased in 5- and 6-year-olds.

**Conclusion:** The role of parents has crucial impact in preservation of their children's oral health and it is important to strengthen it. Educational institutions should recognize importance of healthy lifestyle and dietary habits in purpose of oral diseases prevention.

**Keywords:** caries, deciduous teeth, preschool age, educational institutions

FIELD OF DENTISTRY: Restorative and adhesive dentistry  
Presentation type: poster presentation

## CONTROL, MAINTENANCE AND APPLICATION OF POLYMERIZATION LAMPS AMONG DENTISTS IN THE SARAJEVO CANTON

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### ABSTRACT

Light polymerization is the most common polymerization method for resin-based dental materials. Secondary caries, filling fractures, discoloration, loss of anatomical tooth shape due to wear and reduced retention of the fillings are associated with inadequate polymerization. The aim of this study was to investigate the types of dental curing lights used by dentists in the Sarajevo canton, as well as their control and maintenance routines.

The research was conducted through an anonymous survey of dentists in the Sarajevo canton employed in state institutions and private practices. 120 surveys were sent out and 108 dentists (90%) returned the completed questionnaire. Descriptive statistics methods, as well as the chi-square test and the binomial test at the significance level of  $p < 0.05$  were employed to process the data using Microsoft Office Excel.

This research showed that the largest number of surveyed dentists (87%) use LED lamps in their daily practice ( $p = 0,00000001$ ). None of the respondents uses plasma and laser lamps for polymerization, while a certain number of respondents (3%) aren't familiar with the type of lamp used. The radiation intensity of polymerization is not measured by more than half of the respondents (62%) because they lack an available radiometer. The majority of dentists, 69%, have no knowledge of the radiation intensity of the lamp they use daily. Statistical analysis using the chi-square test showed that dentists in private practices control lamps significantly more ( $p = 0.044864$ ) than in state institutions. Almost one-third of respondents (29%) control the lamp solely by visual means, specifically by observing the light guide.

Based on the results, it was determined that there are certain shortcomings in the daily practice of the surveyed dentists. Continuous education programs that emphasize the value of dental radiometers and regular polymerization lamp monitoring are needed.

**Keywords:** Light curing units, dental radiometers, irradiance, questionnaire.

FIELD OF DENTISTRY: Dental pathology

Type of presentation: poster presentation

## SUPERNUMERARY TOOTH IN THE MAXILLARY INCISOR REGION – MESIODENS – CASE REPORT

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### ABSTRACT:

Mesiodens is a supernumerary tooth with a conical shape and usually a short root, localized in the incisor area. Research has shown that only 25% of supernumerary teeth in the permanent dentition erupt, while the rest remain impacted.

An eleven-year-old boy accompanied by his mother came to our practice due to aesthetic problems caused by a supernumerary incisor in the upper jaw. The orthopantomogram shows the normal shape of the mesiodens root. The treatment plan included extraction of the supernumerary tooth under local anesthesia. The intervention itself went without any complications. A control examination after ten days showed normal healing and recovery of soft tissues.

**Key words:** supernumerary tooth, mesiodens, incisor

FIELD OF DENTISTRY: Endodontics

Type of presentation: poster presentation

## ENDODONTIC TREATMENT OF MANDIBULAR PREMOLARS WITH ATYPICAL ROOT CANAL MORPHOLOGY - CASE REPORT

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### ABSTRACT

**Introduction:** Mandibular premolars typically have one root and one canal. However, variations from standard root and canal morphology are possible. This case report aims to describe the diagnostic and therapeutic steps in the endodontic treatment of two-canal mandibular premolars.

**Case report:** A 45-year-old female patient was presented to the dentist for prosthetic rehabilitation of the lower jaw teeth. The intraoral examination revealed a significant vestibular inclination of teeth 34 and 45, along with deep class II composite restorations. The retro-alveolar scans from different angles showed the presence of an additional canal on teeth 34 and 45 being later verified by 3D CBCT imaging. The endodontic treatment of mandibular premolars with two canals was successfully completed and appropriate control radiographs were taken.

**Conclusion:** Through careful analysis of radiographic images and examination of the pulp chamber's floor, it is possible to identify the atypical root canal morphology in the mandibular premolars. The eccentric position of the orifice implies the presence of an additional canal. In most cases, deviation from the average root canal morphology in the same patient is bilateral.

**Keywords:** mandibular premolar, root canals, morphology, endodontic treatment

FIELD OF DENTISTRY: Endodontics

Type of Presentation: Poster Presentation

## TISSUE NECROSIS AS A COMPLICATION FOLLOWING THE APPLICATION OF PARA-FORMALDEHYDE-BASED DEVITALIZATION PASTE IN ENDODONTIC TREATMENTS – A CASE REPORT

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### ABSTRACT:

**Introduction:** Agents used for pulp devitalization in cases where local anesthetics are ineffective can exhibit toxic effects on surrounding tissues leading to necrosis. Timely therapeutic intervention may prevent further toxic effects, although sometimes efforts may not entirely prevent deeper penetration and disruption of bone integrity.

The aim of this study is to present complications arising from inadequate application of paraformaldehyde-based pulp devitalization agents and their treatment.

**Materials and Methods:** A case of a patient receiving pulp devitalization on tooth 36 due to uncontrollable pain will be presented, where the exposed agent led to initial necrosis of surrounding tissue. The patient presented at the clinic on Friday due to acute pain in tooth 36 following clinical examination and analysis of RVG imaging. Local anesthesia was administered. However, complete pain-free work was not achieved. After removal of existing filling and chamber trepanation, the pulp devitalization agent was applied, covered with cotton, and temporary GJC filling was placed using a matrix. The patient returned to the clinic on Monday reporting mild discomfort in the area and changes in the lingual mucosa adjacent to the treated tooth. Examination revealed damage to the interdental papilla and marginal gingiva, the temporary filling and cavity content were removed, and the patient was referred for further treatment at the Clinic for Oral Medicine and Periodontology.

**Results:** The therapeutic protocol and recovery process will be presented.

**Conclusion:** The use of paraformaldehyde-based devitalization agents in endodontics is effective but not without risks, requiring careful application to avoid contact with the gingiva and diffusion into surrounding tissues.

**Keywords:** paraformaldehyde, necrosis, pulp devitalization

FIELD OF DENTISTRY: Endodontics  
Presentation type: Poster presentation

## THE SIGNIFICANCE OF DIAGNOSTIC PROTOCOL IN APICAL PERIODONTITIS CAUSED BY TRAUMATIC OCCLUSION: A CASE REPORT

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### ABSTRACT

**Introduction:** Apical periodontitis is an inflammatory lesion of the apical periodontium, most commonly caused by microorganisms from the infected root canal. However, it can occur due to traumatic occlusion in teeth with vital pulp tissue. Periapical lesions of pulpal origin, as well as lesions caused by traumatic occlusion, may produce similar symptoms and radiographic manifestations. This case report aims to demonstrate the significance of thorough implementation of clinical protocol in identifying apical periodontitis caused by traumatic occlusion.

**Case report:** A 27-year-old female patient was presented for a routine dental examination. She reported a mild sensation of pressure in the area of the upper left central incisor's root apex. Clinical examination revealed that tooth 21 was intact but makes premature contact with its antagonist, tooth 31. Sensibility test results from the electric pulp tester were positive. Imaging-wise, RVG showed a radiolucency around the apex of tooth 21. Following confirmation, it was measured to a 2.84 mm lesion on the 3D CBCT image. Finally, the anamnestic and diagnostic data led to the diagnosis of apical periodontitis due to traumatic occlusion.

**Conclusion:** Apical periodontitis caused by pulp-related disease or by excessive force on teeth can present with similar radiographic features. X-ray diagnostics should have a major, although not definitive role in diagnostic process in endodontics. A simple, reliable and safe diagnostic procedures such as a sensibility test, combined with a detailed medical history and clinical examination, may be crucial for successfully identifying a periapical disorder and establishing the necessary course of treatment.

**Keywords:** traumatic occlusion, apical periodontitis, sensibility test, diagnostic protocol

DENTAL SPECIALTY: Orthodontics  
Type of presentation: Poster presentation

## OLIGODONTIA – TREATMENT OPTIONS

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### SUMMARY

**Introduction:** Oligodontia is the congenital absence of six or more teeth, excluding third molars, both primary and permanent dentition. In oligodontia, missing teeth are the ones that did not erupt inside the oral cavity, clinically, and that are not visible radiographically, nor are they showing any signs to appear. Previous research has shown that the prevalence of missing teeth in children increased significantly during the twenty-first century.

The aim of this paper is to present the treatment options for patients with oligodontia.

**Case presentation:** A 12-year-old female patient visited the Department of Orthodontics with the complaints of missing the majority of teeth. Clinical examination and OPG analysis revealed that the patient does not have a total of thirteen teeth. Treatment is proposed in consultation with a specialist in prosthodontics.

**Conclusion:** Patients with oligodontia requires multidisciplinary treatment involving the cooperation of an orthodontist, specialist in pedodontics and prosthodontics for an adequate therapy plan and its implementation.

**Keywords:** oligodontia, multidisciplinary approach, missing teeth

FIELD OF DENTISTRY: Oral Medicine

Type of presentation: Poster Presentation

## ORAL MANIFESTATIONS OF DYSTROPHIC EPIDERMOLYSIS BULLOUS - CASE REPORT

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### ABSTRACT

**Introduction:** Epidermolysis bullosa is a rare genetic disease characterized by severe sensitivity of the skin and, in some patients, mucous membranes with the formation of bullae and ulcerations. There are three basic types of the disease: Epidermolysis bullosa simplex (intraepidermal bulla), Epidermolysis bullosa junctional (border bulla) and Epidermolysis bullosa dystrophic (dermal bulla). The prominent clinical characteristic of all three forms is the development of bullae in mucosa or skin in response to minor trauma. Ulcerations heal with scars creating contractures and reducing mobility.

**Materials and methods:** Oral manifestations of dystrophic epidermolysis bullosa include multiple ulcerations of the oral mucosa, gingival inflammation, microstomia, ankyloglossia and vestibular sulcus insufficiency. Ulcerations are also present on the skin healing with the scars. Ulcerating of the hands and feet followed by scarring fuses the digits into "mitten" hands and feet, with contractures and pseudo-syndactyly.

We will present the case of a 30-year-old patient, M.K. who reported regularly to the Department and Clinic for Oral Medicine and Periodontology due to problems in the oral cavity caused by an underlying disease, as well as the need for initial periodontal treatment.

**Conclusion:** Therapy of oral and skin manifestations is symptomatic depending on the type of disease and degree of mucous membrane involvement.

The goal of therapy for patients is to prevent or remove complications, raise the quality of life and delay complications.

Therapy also includes education of patients and their family members and a multidisciplinary approach of experts from different specialties.

**Keywords:** bulla, epidermolysis, oral manifestations.

FIELD OF DENTISTRY: Oral Medicine

Type of presentation: poster presentation

## CHANGES IN THE ORAL MUCOUS MEMBRANES DURING THE USE OF TOBACCO PRODUCTS (SNUS), CASE REPORT

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### ABSTRACT:

**Introduction:** Changes in the oral mucosa and gingiva can be of different origin and appearance. Erosion of the mucous membrane means a surface defect whose bottom is at the level of the epithelium, heals without a scar and is painful due to the exposure of nerve fibers. An ulcer is a defect located in the deeper layers of the oral mucosa. The bottom is under the epithelium in the connective tissue and muscles and heals with a scar. Snus is a "smokeless" tobacco product that is packaged in bags and thus prepared for use. It dissolves in the oral cavity in contact with the mucosa of the fornix and in the presence of saliva. The aim of the paper: To show the changes in the oral mucous membranes as a result of the use of tobacco products.

**Material and methods:** The paper will present a 13-year-old patient with changes in the mucous membranes and gingiva caused by the use of tobacco products (snus). The patient came to the Clinic for Oral Medicine and Periodontology after an examination in the reception clinic of the Faculty of Dentistry, on the instructions of the practicing pedodontics. The referring diagnosis was aphthous stomatitis and gingivitis. After taking anamnestic data and a clinical examination, changes are observed below the level of the mucous membrane in the fornix and on the marginal gingiva in the region of teeth 12 and 13. The changes are irregularly shaped and painful, and their appearance and localization may indicate the use of tobacco products such as snus. Results: The therapeutic protocol for treatment will be presented and will be commented on with the experiences of other authors.

**Conclusion:** The use of tobacco products (snus) can be harmful in several ways. In addition to damaging the oral mucosa and gingiva, this product can develop addiction.

**Key words:** gingivitis, oral health, tobacco product - snus, ulcer, erosion



FIELD OF DENTISTRY: Oral Medicine

Type of presentation: poster presentation

## FREQUENCY OF DEVELOPMENTAL ANOMALIES AND MUCOSAL INFLAMMATION OF THE TONGUE AMONG FOURTH-YEAR DENTISTRY STUDENTS AT THE UNIVERSITY OF SARAJEVO

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### ABSTRACT

**Introduction:** The tongue is a muscular organ covered dorsally by highly specialized tissue and ventrally by protective mucosa. Pathological changes of the tongue can be classified into three main groups: anomalies, inflammations and tumors. Developmental anomalies and inflammations are common occurrences, often associated with systemic conditions such as diabetes, allergies, anemia as well as harmful habits. The use of tobacco products and alcohol is frequently linked to the changes in the tongue.

**Objective:** To present the frequency of developmental anomalies and inflammations of the tongue among fourth-year dentistry students at the University of Sarajevo.

**Materials and methods:** The study will be conducted on 50 participants, fourth-year dentistry students at the University of Sarajevo. General anamnestic data will be collected through a questionnaire, along with data on harmful habits such as cigarette smoking, hookah use and alcohol consumption. A clinical examination of the oral cavity will be performed, focusing on the examination of the tongue, as well as tests for vito-pressure, vito-adhesion and native examination for *Candida albicans*.

Results will include a statistical evaluation of all observed parameters.

Discussion will involve the interpretation and discussion of the obtained results comparing them with relevant data from the literature.

Conclusions will be formulated as precise responses to the research objectives.

**Keywords:** tongue, developmental anomalies, inflammation, students

FIELD OF DENTISTRY: Periodontology

Type of presentation: Poster presentation

## A CASE REPORT OF COMPLICATED PERIODONTITIS ASSOCIATED WITH THE COMPLICATIONS OF A MANDIBULAR PROGNATHISM SURGERY

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### ABSTRACT

**Introduction:** Periodontitis is an inflammatory disease affecting the tooth supporting structures, while mandibular prognathism appears as a skeletal irregularity characterized by an excessive mandibular growth.

This presentation aims to present the case of a patient with complicated periodontitis along with the complications arising from the surgical correction of mandibular prognathism.

**A case report:** A female patient N.I. (1980.) showed up at the Department of Oral Medicine and Periodontology due to teeth mobility presented in the lower jaw, making mastication difficult. The patient also reported pain in the temporomandibular joint, all of which affected the patient's quality of life. From the medical history, it was found out that the patient had undergone four mandibular prognathism surgeries. Anamnesis, clinical examination and radiographic diagnosis revealed a lack of bone on the right side of the lower jaw, the presence of pockets of the remaining teeth, malocclusion and consequently, pathological changes of the temporomandibular joint, limited movement of the lower jaw and unaesthetic extraoral facial asymmetries. The periodontal part of the therapy involved removing dental plaque and calculus and also subgingival curettage to prevent further bone and remaining teeth loss, consultations with a dental prosthetics specialist regarding indications and contraindications for further prosthetic treatment and also examination of the condition of an already existing prosthetic restoration. The patient was referred to an oral or maxillofacial surgeon for consultations regarding bone augmentation.

**Conclusion:** This case report highlights the importance of a multidisciplinary approach in treating patients with complex dental problems and emphasizes the need for a thorough diagnosis and individualized treatment plan to achieve a successful treatment outcome.

**Keywords:** periodontitis, mandibular prognathism surgery, TMJ, prosthetic treatment of the patient

FIELD OF DENTISTRY: Oral surgery

Type of presentation: poster presentation

## CLINICAL RESULT OF IMMEDIATELY PLACED IMPLANTS

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### ABSTRACT

**Introduction:** Immediate implantation shortens the number of surgical procedures and is therefore more comfortable for the patient but it is not indicated in all cases. Tooth extraction is a traumatic procedure. The buccal lamella of the alveolar ridge is particularly susceptible to strong resorption, the loss of which occurs as early as two weeks after tooth extraction. After twelve months, the width of the alveolar ridge is further reduced by about 50%. The buccal lamella is mostly nourished via the periodontal ligament and periosteum. As the periodontal ligament is damaged by tooth extraction, this route of nutrition is lost, feeding is interrupted and resorption inevitably occurs. Immediate postextraction implantation is the procedure of immediate installation of a dental implant, immediately after tooth extraction. Factors that influence the positive outcome of immediate implantation are: implant positioning, platform switching concept, bone preparation protocol, buccal and palatal thickness bones, patient-dependent factors (smoking, maintenance of oral hygiene...).

The purpose of this study is to determine the consequences and benefits of immediate implantation, in terms of preserving the alveolar bone.

**Methods:** The study represents a clinical, prospective, comparative, randomized and blind study of a therapeutic-analytical and clinical-applicative nature.

**Results:** The study showed a statistically significant reduction in postoperative resorption of the buccal lamella in patients with an immediately placed implant.

**Conclusion:** When considering the possibility of immediate implantation, clinicians should take into account all factors that can lead to the failure of the procedure. The amount of newly created bone is directly related to the patient's age, whether he is a smoker or non-smoker, the thickness of the alveolar bone wall, the degree of crestal bone resorption, the type of implant and its position within the bone.

FIELD OF DENTISTRY: Oral Surgery

Type of presentation: poster presentation

## COMPLEX ODONTOMA ASSOCIATED WITH LOWER IMPACTED CANINE – OWN CASUISTRY

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### ABSTRACT

**Introduction:** Odontoma, the most common odontogenic tumor. The basic characteristics of odontomas are slow growth and benignity. They are mostly asymptomatic and are discovered incidentally after radiographic imaging of the jaws. However, if not diagnosed and treated in time, it can cause complication. The etiology of its formation is not fully understood, but trauma, infection and genetic factors are cited among the causes. Odontoma has two morphological forms: odontoma compositum and odontoma complex. Diagnosis of odontoma involves, in addition to anamnesis and clinical examination, radiographic imaging and CBCT diagnostics to determine the size, shape and location of the tumor as precisely as possible. The treatment of odontoma is surgical and involves excision of the tumor.

**Material and methods:** In this paper, we presented the case of a fourteen-year-old female patient who developed swelling in the region of tooth 43. Detailed clinical examination and CBCT diagnostics revealed a change in the right side of the mandible characterized as an odontoma, and the presence of an impacted canine in a specific horizontal position. The surgical protocol involved the extraction of the deciduous canine and complete removal of the tumor. The successful surgical excision of the tumor was performed using a minimally invasive intraoral approach with maximum bone preservation. The wound was primarily sutured.

**Result:** The authors presented a detailed diagnostic and therapeutic protocol for treating complex odontoma associated with an impacted lower canine on the right side through a case from their own casuistry. The histopathological report confirmed the diagnosis of complex odontoma. The described case resulted in a positive outcome, which was confirmed through regular clinical and radiological follow-up examinations.

**Conclusion:** Early diagnosis and adequate treatment of odontogenic tumors are key for preserving oral health and preventing potential complications.

**Key words:** odontoma, odontogenic tumor, surgical therapy, impacted tooth.

FIELD OF DENTISTRY: Dental traumatology

Type of presentation: Poster presentation

## TREATMENT OF DENTAL INJURIES IN DAILY DENTAL PRACTICE

### – PRESENTATION OF SEVERAL CASES

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#### ABSTRACT

**Introduction:** The frequency of dental trauma and daily need to treat children with dental injuries require dentists to have knowledge and proper therapeutic procedures in all stages of treatment.

The aim of the work: Presenting cases from clinical practice and sharing experience with colleagues to help them in daily work.

**Materials and methods:** Patient M.K. born in 2015., came to the dental office after an injury from a fall from a scooter during which tooth avulsion occurred on tooth 21. After finding the tooth, repositioning is done in the alveolus and a wire-composite splint is placed.

Patient R.I. born in 2009., came to the oral surgery office accompanied by his father, and after an injury in physical education class, teeth 11, 21 and 22 were luxated. The teeth are repositioned and a splint is placed.

Patient H.E. born in 2011., came to the dental office accompanied by his mother after an injury to teeth 11 and 21. After a clinical examination and X-ray analysis, the tooth is repositioned and a wire-composite splint is placed.

**Conclusion:** Considering the frequency of dental traumas it is necessary to educate children and parents on how to act in the event of trauma because their timely reaction and the method of transporting the avulsed tooth greatly affect the outcome of the treatment.

**Keywords:** Tooth injury, knowledge, procedure, splint

FIELD OF DENTISTRY: Prosthodontics

Type of Presentation: Poster Presentation

## THE SAGITTAL CONDYLAR INCLINATION IN DIFFERENT DENTAL STATUS

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#### ABSTRACT

**Introduction:** The inclination of the sagittal condylar path is influenced by numerous factors and determines the kinematics of the temporomandibular joint.

**Methods:** The sample includes 3D CBCT scans of patients which were earlier taken for diagnostic and treatment purpose. The subjects' CBCT scans were divided according to dental status: Group I - partially edentulous with preserved interocclusal relationships (30); Group II - partially edentulous without preserved interocclusal relationships (30). CBCT scans were placed in the multiplanar reconstruction position. The axial section where the condyle has the widest mediolateral diameter was the reference view for sagittal section reconstruction. The inclination of the articular eminence is measured on the sagittal section as the angle between the plane passing through the highest point of the glenoid fossa and the lowest point of the articular eminence and the Frankfurt horizontal. For data analysis and measurements, Sidexis 4 software was used.

**Results:** The analysis included a total of 60 CBCT scans of patients. The average age of participants in Group II was significantly higher compared to Group I ( $p < 0.013$ ). Although the average values of the sagittal condylar angle of the right and left temporomandibular joints were higher in Group I compared to Group II, the difference was not significant ( $p = 0.252$ ;  $p = 0.135$ ), as well as between genders.

**Conclusion:** Differences in the inclination of the sagittal condylar path were not significant across different dental statuses.

**Keywords:** Sagittal condylar path, CBCT, dental status

FIELD OF DENTISTRY: Endodontics

Type of presentation: oral presentation

## ENDODONTIC AND SURGICAL RETREATMENT OF UPPER INCISORS

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### ABSTRACT

**Introduction:** This case report describes the endodontic and surgical retreatment of teeth 11 and 12, 14 years after primary endodontic and surgical therapy, which was performed due to the consequences of trauma in an 11-year-old girl. The primary goal of this paper is to point out the need for longer follow-up of endodontic therapy outcomes.

**Case report:** A twenty-five-year-old girl presents to the Clinic for Dental Pathology with endodontics due to the development of a fistula in the projection of the apex of the upper right central incisor, which was also confirmed by a clinical examination. Analyzing the panoramic image taken in the same visit, inhomogeneous endodontic filling of the root canals and radiolucent zones in the periapical region of teeth 11 and 12 are observed. The same teeth are also noticeably shorter, which is a consequence of the initial apicotomy that the patient also mentions in the dental history. The origin of the fistula was determined by fistulography, and the size of the periapical change by segmental CBCT. The removal of the previous filling is approached with the help of ultrasound and endodontic revision files. The working length is determined by an orientational retroalveolar image with test gutta-perchas in the root canals, due to the inconsistent and unreliable display of the working length on the apex locator. Irrigation of the root canals was done with 3% NaOCl, while the final irrigation was done with 2% chlorhexidine digluconate, and after copious rinsing with saline solution. Intracanal calcium hydroxide medication is renewed every 20 days for 2 months. Due to the persistent fistula, and in consultation with the oral surgeon, a new apicotomy was performed on

teeth 11 and 12. Preoperatively, the root canals are obturated using the cold lateral condensation technique. On the retroalveolar image 3 months later, a reduction of periapical lesions is evident, and clinically the patient is symptom-free and without fistula. One year after the endodontic and surgical retreatment, the retroalveolar image shows the healing of the bone defect with the absence of signs and symptoms of periapical disease.

**Conclusion:** Dentists should be aware of the need for longer-term follow-up of endodontic therapy outcomes, especially those teeth with periapical changes due to their regression monitoring.

**Keywords:** endodontic retreatment, fistula, apicotomy, control examinations