

OBLAST STOMATOLOGIJE: DENTALNA IMPLANTOLOGIJA

**PODIZANJE DNA MAKSILARNOG SINUSA
TRANSKRESTALNOM I LATERALNOM
TEHNIKOM - PRIKAZ SLUČAJA**Brigita Babić¹, Franka Babić², Zdenko Šarac²¹Studentica 5. godine Studija dentalne medicine, Medicinski fakultet Sveučilišta u Mostaru²Studij dentalne medicine, Medicinski fakultet, Sveučilište u Mostaru**SAŽETAK**

Uvod: Stražnji segment gornje čeljusti predstavlja izazov u implantologiji zbog resorpcije alveolarne kosti nakon gubitka zuba. Podizanje dna maksilarnog sinusa kirurški povećava vertikalnu dimenziju kosti i doprinosi uspješnoj implantoprotetskoj rehabilitaciji pacijenta. Dostupne su različite kirurške metode podizanja sinusa, a izbor pristupa određuje se prema potrebama augmentacije i očekivanoj invazivnosti zahvata.

Materijali i metode: Pacijentica se javlja zbog funkcionalne rehabilitacije. Klinički pregled i radiološka analiza pokazali su smanjenu visinu alveolarne kosti. Indicirano je podizanje dna maksilarnog sinusa prije ugradnje implantata. Primijenjene su dvije tehnike: transkrestalna na strani s manjim nedostatkom kosti i lateralna na strani s izraženijom atrofijom.

Rezultati: Obje tehnike omogućile su uspješno povećanje volumena kosti i stvaranje uvjeta za daljnju implantološku terapiju. Sve je potvrđeno radiološkim nalazom nakon zahvata. Zahvati su protekli bez značajnih intraoperativnih komplikacija, postoperativno cijeljenje bilo je uredno. Prisutnost ranije ugrađenih implantata utjecala je na planiranje i izvedbu zahvata.

Zaključak: Obje tehnike podizanja dna maksilarnog sinusa pokazale su visoku razinu uspješnosti u povećanju volumena kosti. Odabir odgovarajućeg pristupa temelji se na kliničkoj i radiološkoj procjeni uz adekvatno planiranje i preciznu kiruršku izvedbu.

Ključne riječi: maksilarni sinus, transkrestalni pristup, lateralni pristup, implantati, augmentacija kosti

FIELD OF DENTISTRY: DENTAL IMPLANTOLOGY

**PREVALENCE OF BLACK CHROMOGENIC
DISCOLORATIONS OF BACTERIAL GENESIS IN THE
POPULATION OF BOSNIA AND HERZEGOVINA**Brigita Babić¹, Franka Babić², Zdenko Šarac²¹5th-year Dental Medicine Student, Faculty of Medicine, University of Mostar²Dental Medicine, School of Medicine, University of Mostar**ABSTRACT**

Introduction: The posterior segment of the maxilla presents a challenge in implantology due to alveolar bone resorption following tooth loss. Sinus lift surgically increases the vertical bone height and contributes to successful implant-prosthetic rehabilitation. Various surgical techniques for sinus lift are available, and the choice of approach is determined by the augmentation requirements and expected invasiveness of the procedure.

Materials and Methods: The patient came in for functional rehabilitation. Clinical examination and radiological analysis revealed reduced alveolar bone height. Sinus lift was indicated prior to implant placement. Two techniques were applied: a transcrestal approach on the side with less bone deficiency and a lateral approach on the side with more pronounced atrophy.

Results: Both techniques successfully increased bone volume and created favorable conditions for further implant therapy, as confirmed by postoperative radiological findings. The procedures were completed without significant intraoperative complications, and postoperative healing was uneventful. The presence of previously placed implants influenced the planning and execution of the procedures.

Conclusion: Both sinus lift techniques demonstrated a high level of success in increasing bone volume. The choice of approach should be based on clinical and radiological assessment, with careful planning and precise surgical execution being key factors for achieving a long-term stable and successful therapeutic outcome.

Keywords: maxillary sinus, transcrestal approach, lateral approach, implants, bone augmentation

OBLAST STOMATOLOGIJE: DENTALNA PATOLOGIJA

**PRIENOS ORALNIH MIKROORGANIZAMA
IZMEĐU ČOVJEKA I MAČKE: MOGUĆE
POSLEDICE PO ORALNO ZDRAVLJE****Alma Husović, Selma Jakupović**

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SAŽETAK

Oralna šupljina čovjeka i mačke predstavlja kompleksan ekosistem mikroorganizama koji može biti podložan međusobnom prijenosu usljed bliskog kontakta. Cilj rada je analizirati potencijal prijenosa mikroorganizama između čovjeka i mačke i njihov uticaj na oralno zdravlje.

Proveden je pregled dostupne naučne literature iz oblasti mikrobiologije i veterinarske medicine, sa fokusom na oralni mikrobiom, zoonoze i mehanizme transmisije mikroorganizama između vrsta.

Identifikovano je da oralna mikrobiota i kod čovjeka i kod mačke sadrži brojne potencijalno patogene mikroorganizme, uključujući bakterije rodova *Streptococcus*, *Staphylococcus* i *Pasteurella*. Blizak kontakt, poput lizanja, ugriza ili dijeljenja životnog prostora, može omogućiti dvosmjerni prijenos mikroorganizama. Takav prijenos može dovesti do disbioze oralnog mikrobioma i povećanog rizika za razvoj oralnih oboljenja kao što su gingivitis i parodontitis.

Iako su direktni dokazi o međusobnoj transmisiji oralnog mikrobioma između čovjeka i mačke ograničeni, postoje značajni indirektni dokazi koji ukazuju na mogućnost takve interakcije i njen potencijalni uticaj na oralno zdravlje obje vrste.

Ključne riječi: oralni mikrobiom, zoonoze, mačke, čovjek, oralno zdravlje

FIELD OF DENTISTRY: DENTAL PATHOLOGY

**TRANSMISSION OF ORAL MICROORGANISMS
BETWEEN HUMANS AND CATS: POSSIBLE
IMPLICATIONS FOR ORAL HEALTH****Alma Husović, Selma Jakupović**

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ABSTRACT

The oral cavity of both humans and cats is a complex ecosystem of microorganisms that may be subject to mutual transmission due to close contact. The aim of this study was to analyze the potential transmission of microorganisms between humans and cats and their impact on oral health.

A review of available scientific literature in the fields of microbiology and veterinary medicine was conducted, with a focus on the oral microbiome, zoonoses, and mechanisms of interspecies microbial transmission.

It was identified that the oral microbiota of both humans and cats contains numerous potentially pathogenic microorganisms, including bacteria from the genera *Streptococcus*, *Staphylococcus*, and *Pasteurella*. Close contact, such as licking, biting, or sharing the same living environment, may enable bidirectional transmission of microorganisms. Such transmission may lead to dysbiosis of the oral microbiome and an increased risk of developing oral diseases such as gingivitis and periodontitis.

Although direct evidence of oral microbiome transmission between humans and cats is limited, there is significant indirect evidence suggesting the possibility of such interactions and their potential impact on the oral health of both species.

Keywords: oral microbiome, zoonoses, cats, humans, oral health

OBLAST STOMATOLOGIJE: DENTALNA TRAUMATOLOGIJA

TRAUMATSKA ETIOLOGIJA HRONIČNOG APIKALNOG PARODONTITISA U DJEČJOJ DOBI- PRIKAZ SLUČAJA**Adisa Filipović–Goga¹, Nedim Leto², Džejma Suljić Hujić³, Ineta Šehović⁴**¹Javna Ustanova Dom zdravlja sa Stacionarom Kakanj²Klinika za maksilofacijalnu hirurgiju, Kantonalna bolnica Zenica³Klinika za oralnu medicinu i paradontologiju, Stomatološki klinički centar Univerziteta Sarajevo.⁴Klinika za dentalnu patologiju i endodonciju, Stomatološki klinički centar Univerziteta Sarajevo**SAŽETAK**

Uvod: Dentalne traume u adolascntnom uzrastu predstavljaju čest javnozdravstveni i klinički problem. Klinička prezentacija ovih stanja često je varijabina i može dovesti do dijagnostičkih i terapijskih dilema, naročito u slučajevima perzistentne infekcije i neadekvatnog odgovora na inicijalno liječenje.

Prikaz slučaja: Četrnaestogodišnji dječak se javlja u pratnji roditelja u ambulantu dentalne patologije i endodoncije po uputi stomatologa koji je predhodno započeo endodontsku terapiju koja nije davala rezultate. Iz anamneze saznajemo da je riječ o udarcu loptom u području gornjih frontalnih zuba koja se desila tri mjeseca prije pojave prvih simptoma te da neposredno nakon povrede nisu posjetili stomatologa. Tri mjeseca nakon povrede dolazi do diskoloracije zuba, bola i otoka. Uprkos endodontskoj terapiji, prisutna je perzistentna purulentna sekrecija i ponavljana egzacerbacija što navodi ordinarijusa na slanje u ambulantu dentalne patologije i endodoncije gdje se kliničkim pregledom utvrdi vestibularni apsces u području gornjeg lijevog lateralnog sjekutića (22) i palatinalna bolnost. Izvršena je incizija, drenaža, te pacijent upućen na CBCT dijagnostiku. CBCT nalaz je ukazao na opsežne osteolitičke lezije sa resorpcijom alveolarne kosti u području zuba 21 i 22 što je potvrđivalo hronični apikalni parodontitis sa akutnom egzacerbacijom. Pacijent se upućuje hirurgu, koji nakon detaljne analize se odlučuje na ekstrakciju zuba 21 i 22.

Zaključak: Prikazani slučaj naglašava značaj detaljne anamneze, pravilne i pravovremene dijagnostike i primjene CBCT-a u slučaju trauma.

Pravovremena, precizna dijagnostika ključna je za adekvatno planiranje i liječenje.

Ključne riječi: Dentalna trauma, hronični apikalni parodontitis, osteolitičke lezije.

FIELD OF DENTISTRY: DENTAL TRAUMATOLOGY

TRAUMATIC ETIOLOGY OF CHRONIC APICAL PERIODONTITIS IN CHILDHOOD: A CASE REPORT**Adisa Filipović–Goga¹, Nedim Leto², Džejma Suljić Hujić³, Ineta Šehović⁴**¹Public Health Clinic with Inpatient Care, Kakanj²Department of Maxillofacial Surgery, Zenica Cantonal Hospital³Oral Medicine and Periodontology Clinic, Dental Clinical Center of the University of Sarajevo⁴Dental Pathology and Endodontics Clinic, Dental Clinical Center of the University of Sarajevo**ABSTRACT**

Introduction: Dental trauma during adolescence is a common public health and clinical problem. The clinical presentation of these conditions is often variable and can lead to diagnostic and therapeutic dilemmas, particularly in cases of persistent infection and inadequate response to initial treatment.

Case Report: A 14-year-old boy, accompanied by his parents, was referred to the dental pathology and endodontics clinic by a dentist who had previously initiated endodontic therapy that had proven unsuccessful. According to the medical history, the patient sustained a ball-related trauma to the upper anterior teeth three months before the onset of symptoms, and no dental consultation was sought immediately after the injury. Three months following the trauma, the patient developed tooth discoloration, pain, and swelling. Despite prior endodontic treatment, persistent purulent discharge and recurrent exacerbations were observed, prompting the referring dentist to send him to the dental pathology and endodontics clinic. Clinical examination revealed a vestibular abscess in the region of the upper left lateral incisor (tooth 22) and palatal tenderness. Incision and drainage were performed, and the patient was referred for CBCT evaluation. CBCT imaging revealed extensive osteolytic lesions with alveolar bone resorption in the region of teeth 21 and 22, which confirmed chronic apical periodontitis with acute exacerbation. The patient was referred to a surgeon who, after a detailed assessment, decided to extract teeth 21 and 22.

Conclusion: The presented case highlights the importance of obtaining a thorough medical history, performing accurate and timely diagnosis, and utilizing CBCT in trauma cases.

Timely and precise diagnosis is crucial for appropriate treatment planning and management.

Keywords: Dental trauma, chronic apical periodontitis, osteolytic lesions.

OBLAST STOMATOLOGIJE: DJEČIJA STOMATOLOGIJA

UTJECAJ RAZLOGA PRVOG STOMATOLOŠKOG PREGLEDA NA KASNIJE OBRASCE STOMATOLOŠKIH POSJETA DJECE: PRESJEČNA STUDIJA

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SAŽETAK

Uvod: Gotovo sve suvremene smjernice o oralnom zdravlju djece preporučuju prvi stomatološki pregled do navršene prve godine života ili neposredno nakon nicanja prvog zuba. Takav rani kontakt sa stomatološkom skrbi jako je važan u prevenciji karijesa, praćenju pravilnog rasta i razvoja orofacijalnog sustava te u oblikovanju trajnih zdravih navika.

Cilj: Ispitati povezanost između razloga prvog stomatološkog pregleda i kasnijeg obrasca stomatoloških posjeta djece.

Metode: Provedena je sekundarna analiza presječnog istraživanja na uzorku od 405 roditelja/skrbnika djece. Razlog prvog pregleda kategoriziran je kao zubobolja, preventivni pregled ili upoznavanje s okolinom, a ishod je bila učestalost kasnijih posjeta (samo kada postoji problem, jednom godišnje, dva puta godišnje). Analiza je provedena na 397 ispitanika s potpunim podacima. Povezanost je ispitana Pearsonovim χ^2 testom, a veličina učinka procijenjena Cramerovim V koeficijentom uz razinu značajnosti $p < 0,05$.

Rezultati: Utvrđena je statistički značajna povezanost između razloga prvog pregleda i kasnijeg obrasca posjeta ($\chi^2=31,19$; $p < 0,001$; $V=0,20$). Među djecom koja su prvi put došla zbog zubobolje, 39 od 81 (48,1%) kasnije je dolazilo na redovite kontrole (jednom ili dva puta godišnje). Nasuprot tome, među djecom s preventivnim prvim pregledom, 167 od 214 (78,0%) nastavilo je dolaziti redovito, dok je sličan obrazac zabilježen i kod djece koja su prvi put došla radi upoznavanja sa stomatološkim okruženjem (77 od 102; 75,5%).

Zaključak: Razlog prvog stomatološkog pregleda značajno je povezan s kasnijim obrascem korištenja stomatološke skrbi. Rani preventivni kontakt može potaknuti redovitije dolaske, što naglašava važnost pravodobne edukacije roditelja i ranog uključivanja djece u sustav oralne skrbi.

Ključne riječi: oralno zdravlje djece, stomatološki posjeti, preventivna stomatologija, zdravstveno ponašanje, roditelji, presječna studija

FIELD OF DENTISTRY: PEDIATRIC DENTISTRY

THE IMPACT OF THE REASON FOR THE FIRST DENTAL VISIT ON SUBSEQUENT DENTAL VISIT PATTERNS IN CHILDREN: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Nearly all contemporary guidelines on child oral health recommend a first dental visit by the age of one year or shortly after the eruption of the first tooth. Such early contact with dental care is very important for caries prevention, monitoring normal orofacial growth and development, and establishing lifelong healthy habits.

Objective: To examine the association between the reason for the first dental visit and subsequent dental attendance patterns in children.

Methods: A secondary analysis was conducted using data from a cross-sectional study involving 405 parents or guardians. The reason for the first dental visit was categorized as toothache, preventive examination, or familiarization with the dental environment, while the outcome was the frequency of subsequent visits (problem-based visits only, once yearly, or twice yearly). The analysis included 397 participants with complete data. Associations were assessed using Pearson's chi-square test, and effect size was estimated using Cramer's V, with statistical significance set at $p < 0.05$.

Results: A statistically significant association was found between the reason for the first dental visit and subsequent attendance patterns ($\chi^2=31.19$; $p < 0.001$; $V=0.20$). Among children whose first visit was due to toothache, 39 of 81 (48.1%) later attended regular check-ups (once or twice yearly). In contrast, among children with a preventive first visit, 167 of 214 (78.0%) continued to attend regularly, while a similar pattern was observed in children who initially attended for familiarization (77 of 102; 75.5%).

Conclusion: The reason for the first dental visit is significantly associated with subsequent patterns of dental care utilization. Early preventive contact may promote regular attendance, highlighting the importance of timely parental education and early integration of children into the dental care system.

Keywords: child oral health, dental visits, preventive dentistry, health behavior, parents, cross-sectional study

OBLAST STOMATOLOGIJE: DJEČIJA STOMATOLOGIJA

BIRAJU LI RODITELJI ODGOVARAJUĆU ZUBNU PASTU ZA SVOJU DJECU? ULOGA ZNANJA I DRUGIH ČIMBENIKA: PRESJEČNA STUDIJA**Renea Popović, Stipo Cvitanović, Zvonimir Lukač, Brigita Marić, Ružica Zovko**

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SAŽETAK

Uvod: Fluor se koristi u prevenciji karijesa; međutim, izbor zubne paste za djecu u velikoj mjeri ovisi o roditeljima. Razina znanja o fluoridu može utjecati na pravilnost tog izbora.

Cilj: Procijeniti biraju li roditelji odgovarajuću pastu za zube za svoju djecu te ispitati povezanost između znanja o fluoridu i pravilnog odabira paste.

Materijali i metode: Provedena je presječna studija u Mostaru (siječanj–lipanj 2025.) na uzorku od 405 roditelja/skrbnika djece. Prikupljeni su podaci o sociodemografskim obilježjima, oralno higijenskim navikama i znanju o fluoridu. Formiran je kompozitni skor znanja o fluoridu (0–100) dodjeljivanjem 1 boda za svaki točan odgovor te 0 bodova za netočan ili odgovor „ne znam“, uz linearnu transformaciju na raspon 0–100; viši skor označava veće znanje. Odgovarajuća pasta definirana je kao uporaba fluoridne paste primjerene dobi, u skladu s važećim preporukama. Za analizu su korišteni hi-kvadrat test, Mann–Whitney U test i logistička regresija.

Rezultati: Odgovarajuću pastu koristilo je 32,4% ispitanika. Roditelji s pravilnim odabirom imali su značajno viši skor znanja (43,3 vs 23,3; $p < 0,001$). U multivarijatnoj analizi, viši skor znanja (OR 1,24; 95% CI 1,18–1,30), viši stupanj obrazovanja (OR 2,22; 95% CI 1,30–3,80) i veća važnost pridana savjetu stomatologa (OR 3,97; 95% CI 2,10–7,50) bili su neovisni prediktori pravilnog odabira paste.

Zaključak: Većina roditelja ne odabire odgovarajuću pastu za djecu. Uočeni nesklad između znanja i ponašanja upućuje na potrebu za ciljanim edukacijskim intervencijama i jačanjem uloge stomatologa u preventivnim strategijama.

Ključne riječi: fluor, zubna pasta, djeca, roditelji, oralno zdravlje

FIELD OF DENTISTRY: PEDIATRIC DENTISTRY

DO PARENTS CHOOSE APPROPRIATE TOOTHPASTE FOR THEIR CHILDREN? THE ROLE OF KNOWLEDGE AND OTHER DETERMINANTS: A CROSS-SECTIONAL STUDY**Renea Popović, Stipo Cvitanović, Zvonimir Lukač, Brigita Marić, Ružica Zovko**

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ABSTRACT

Background: Fluoride is used in caries prevention; however, the choice of toothpaste for children largely depends on parents.

Objective: To assess whether parents choose appropriate toothpaste for their children and to examine the association between fluoride knowledge and appropriate toothpaste selection.

Materials and Methods: A cross-sectional study (Mostar, January–June 2025) included 405 parents/guardians. Data on sociodemographic, oral hygiene practices and fluoride knowledge were collected. A composite fluoride knowledge score (0–100) was calculated from correct responses (higher scores indicate greater knowledge). Appropriate toothpaste use was defined as age-appropriate fluoride toothpaste in line with current recommendations.

Results: Only 32.4% of parents chose appropriate toothpaste. Parents with appropriate selection had significantly higher knowledge scores (43.3 vs 23.3; $p < 0.001$). In multivariable analysis, higher knowledge score (OR 1.24; 95% CI 1.18–1.30), higher education level (OR 2.22; 95% CI 1.30–3.80), and greater importance assigned to professional dental advice (OR 3.97; 95% CI 2.10–7.50) were independent predictors of appropriate toothpaste selection.

Conclusion: Most parents do not select appropriate toothpaste for their children. The observed gap between knowledge and behavior highlights the need for targeted educational interventions and stronger integration of professional dental guidance into preventive strategies.

Keywords: fluoride, toothpaste, children, parents, oral health

OBLAST STOMATOLOGIJE: DJEČIJA STOMATOLOGIJA

TERAPIJA AVULZIJE GORNJIH STALNIH CENTRALNIH SJEKUTIĆA SA LOŠOM PROGNOZOM – PRIKAZ SLUČAJA

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SAŽETAK

Uvod: Avulzija zuba je kompleksna traumatska povreda koju karakteriše kompletno pomjeranje zuba iz njegove alveole, i oštećenje potpornih struktura zuba. Moguće posttraumatske komplikacije su nekroza i infekcija zubne pulpe, obliteracija pulpnog prostora, resorpcija radikularnog prostora, ankiloza i oštećenja marginalne gingive i okolne kosti.

Cilj: Prikaz kliničkog slučaja avulzije gornjih stalnih centralnih sjekutića sa lošom prognozom.

Prikaz slučaja: Pacijent star 10 godina primarno je zbrinut na Klinici za maksilofacijalnu hirurgiju KCUS, gdje su avulzirani zubi 11 i 21 replantirani četiri sata nakon povrede i imobilizirani Pfeifferovim splintom. Dan kasnije upućen je na Stomatološki fakultet UNSA radi korekcije neadekvatne imobilizacije. Ekstirpacija pulpe urađena je mjesec dana nakon povrede, a splint uklonjen nakon 41 dan. Zbog razvoja upalno-zamjenske resorpcije provedeni su višeseansni endodontski tretmani. Nakon gotovo 14 mjeseci uočena je regresija resorptivnih procesa, uz značajnu redukciju korijena. Terapija je završena definitivnom opturacijom oba zuba MTA materijalom.

Diskusija i zaključak: Ishod liječenja avulziranih zuba može biti uspješno cijeljenje ili ekstrakcija. Najvažniji prognostički faktori su vrijeme do replantacije, adekvatna imobilizacija i medij čuvanja zuba prije replantacije.

Ključne riječi: avulzija, mladi trajni zub, komplikacija, replantacija, splint.

FIELD OF DENTISTRY: PEDIATRIC DENTISTRY

THERAPY OF AVULSION OF MAXILLARY PERMANENT CENTRAL INCISORS WITH A POOR PROGNOSIS – A CASE REPORT

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ABSTRACT

Introduction: Tooth avulsion is a complex traumatic injury characterized by the complete displacement of the tooth from its tooth cup, combined with damage of supporting tooth structures. Possible post-traumatic complications are dental pulp necrosis and infection, pulpal space obliteration, root resorption, ankylosis and damage to the marginal gingiva and surrounding bone.

Aim: To present a clinical case of upper permanent central incisors with a poor prognosis.

Case report: A 10-year-old patient underwent replantation of avulsed teeth 11 and 21 four hours after injury, with placement of a Pfeiffer splint. One day later, retreatment of inadequate immobilization was performed. Pulp extirpation was carried out one month after trauma, and the splint was removed after 41 days. Due to inflammatory replacement resorption, both teeth required multiple endodontic retreatments. After almost 14 months, regression of the resorptive process was observed despite significant root reduction. Treatment was completed with MTA obturation of both canals.

Discussion and conclusion: Avulsed teeth may heal successfully or require extraction if replantation fails. Prognosis depends mainly on the time to replantation, proper immobilization, and the storage medium before replantation.

Keywords: avulsion, young permanent tooth, complication, replantation, splint.

OBLAST STOMATOLOGIJE: DJEČIJA STOMATOLOGIJA

ODGOĐENA REAKCIJA U TRETMANU CERVICALNE FRAKTURE KORIJENA STALNOG SJEKUTICA- PRIKAZ SLUČAJAZerina Kučinar Sandžić¹, Alma Alikadić², Damir Duratbegović², Nina Marković¹¹Katedra za dječiju i preventivnu stomatologiju Stomatološkog fakulteta Univerziteta u Sarajevu²Klinika za dječiju i preventivnu stomatologiju Stomatološkog kliničkog centra Univerziteta u Sarajevu**SAŽETAK**

Uvod: Traumatske povrede tijela su odgovorne za više od 5 miliona smrti na godišnjem nivou. Maksilofacijalna regija je površinom mala u odnosu na ostatak tijela, ali prema podacima na nju otpada 5 % svih tjelesnih povreda u svim dobnim skupinama. Najčešći tip povreda u stalnoj dentaciji su povrede tvrdih zubnih tkiva, dok su u mliječnoj dentaciji češće povrede potpornih tkiva zuba. Cilj rada bio je prikazati važnost sveobuhvatnog kliničkog pregleda i rendgen dijagnostike u svakodnevnoj stomatološkoj kazuistici.

Materijal i metode: U radu je prikazan slučaj pacijentice upućene na endodontski tretman zuba 47, gdje je prilikom kliničkog pregleda usne šupljine uočena pomičnost zuba 21, kao i njegova blaga perkutorna osjetljivost bez prisutne spontane simptomatologije. Dodatno, rendgen dijagnostikom (analizom opg-a) uočena je frakturna pukotina u području korijena zuba 21. Planom tretmana odlučeno je da se fraktura korijena zuba prati uz postavu žičano- kompozitnog splinta u frontalnoj regiji uz adekvatan higijensko -dijetetski režim. Na narednim kontrolnim pregledima uočena je smanjena pokretljivost zuba uz adekvatne reakcije na testove vitaliteta i senzibiliteta.

Rezultati: Nakon skidanja splinta ne dolazi do promjena u pogledu simptomatologije i reakcija na testove. Odlučeno je da se trauma prati u vremenskim intervalima od 40 dana, te ukoliko se pojavi bolna simptomatologija potrebno je uraditi endodontski tretman.

Zaključak: Obuhvatnost kliničkog pregleda važna je za pravilnu dijagnostiku i pravovremenu terapiju i sprečavanje postoperativnih komplikacija.

Glavne riječi: fraktura korijena, splint, trauma tvrdih zubnih tkiva, klinički pregled

FIELD OF DENTISTRY: PEDIATRIC DENTISTRY

DELAYED REACTION IN THE TREATMENT OF CERVICAL FRACTURE OF THE ROOT OF THE PERMANENT INCISOR - CASE REPORTZerina Kučinar Sandžić¹, Alma Alikadić², Damir Duratbegović², Nina Marković¹¹Department of Paediatric and Preventive Dentistry, Faculty of Dental Medicine, University of Sarajevo²Clinic for Pediatric and Preventive Dentistry of the Dental Clinical Center, University of Sarajevo**ABSTRACT**

Introduction: Traumatic injuries are responsible for more than 5 million deaths annually. The maxillofacial region is small in surface area compared to the rest of the body, but according to the data, it accounts for 5% of all physical injuries in all age groups. The most common type of injuries in permanent dentition are injuries to hard dental tissues, while in deciduous dentition, injuries to the supporting tissues of the teeth are more common. The aim of this study was to show the importance of comprehensive clinical examination and X-ray diagnostics in everyday dental case studies.

Materials and methods: This paper presents a case of a patient referred for endodontic treatment of tooth 47, where during a clinical examination of the oral cavity the mobility of tooth 21 was observed, as well as its mild percussion sensitivity without the presence of spontaneous symptomatology. In addition, X-ray diagnostics revealed a fracture crack in the area of the root of the tooth 21. The treatment plan decided that the fracture of the tooth root should be monitored with the placement of a wire-composite splint in the frontal region with an adequate hygienic and dietary regimen. At the following check-ups, reduced tooth mobility was observed with adequate reactions to vitality and sensitivity tests.

Results: After removal of the splint, there are no changes in terms of symptomatology and reactions to tests. It was decided that the trauma should be monitored at intervals of 40 days, and if painful symptomatology occurs, endodontic treatment should be performed.

Conclusion: The comprehensiveness of the clinical examination is important for proper diagnosis and timely therapy and prevention of postoperative complications.

Keywords: root fracture, splint, trauma of hard dental tissues, clinical examination

OBLAST STOMATOLOGIJE: ENDODONCIJA

KOMPARATIVNA ANALIZA REGENERATIVNOG I KONVENCIONALNOG ENDODONTSKOG PRISTUPA KOD TRAUMATSKE POVREDE GORNJEG CENTRALNOG I LATERALNOG SJEKUTIĆA: 18-MJESEČNI FOLLOW-UP**Adna Begović, Mirna Pašić, Madžida Halilović Mehinović, Aida Džanković, Lajla Hasić-Branković**

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SAŽETAK

Uvod: Traumatske povrede mladih stalnih zuba predstavljaju značajan izazov u endodonciji. Za razliku od konvencionalnog endodontskog tretmana, regenerativna endodoncija kao terapijska opcija nudi mogućnost biološke obnove tkiva. Cilj ovog rada je prikazati „split-mouth“ scenario i uporediti ishode regenerativnog i konvencionalnog tretmana tokom 18-mjesečnog perioda praćenja.

Prikaz slučaja: Četrnaestogodišnji pacijent se javio na Kliniku za dentalnu patologiju i endodonciju radi multiplih povreda prednjih zuba obje vilice zadobijenih prethodnog dana usljed pada s bicikla. Kliničkim pregledom je uočen edem gornje i donje usne, fraktura incizalnog brida zuba 11, te blaga pomičnost zuba interkanine regije. U toku kontinuiranih praćenja, na kontrolnom pregledu nakon osam mjeseci zabilježen je izostanak odgovora zuba 21 i 22 na test vitaliteta, te je za oba zuba postavljena indikacija za regenerativni endodontski tretman. Procedura je sprovedena na visokom kliničkom nivou, strogo poštujući savremene smjernice. Na zubu 21 uspješno je inducirano intrakanalno krvarenje mehaničkom iritacijom periapikalnog tkiva. Nasuprot tome, na zubu 22, uprkos višestrukim pokušajima, nije postignuto zadovoljavajuće krvarenje, zbog čega je sproveden konvencionalni endodontski tretman.

Zaključak: Iako su i regenerativni i konvencionalni terapijski pristup rezultirali kliničkim uspjehom i odsustvom simptoma nakon 18 mjeseci, regenerativna endodoncija bi trebala biti tretman izbora kod adolescenata zbog jedinstvenog potencijala za revitalizaciju.

Ključne riječi: regenerativna endodontska procedura, maksilarni sjekutić, dentalna trauma, krvni ugrušak, endodontski tretman

FIELD OF DENTISTRY: ENDODONTICS

COMPARATIVE ANALYSIS OF REGENERATIVE AND CONVENTIONAL ENDODONTIC APPROACHES IN TRAUMATIC INJURY OF MAXILLARY CENTRAL AND LATERAL INCISORS: 18-MONTH FOLLOW-UP**Adna Begović, Mirna Pašić, Madžida Halilović Mehinović, Aida Džanković, Lajla Hasić-Branković**

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ABSTRACT

Introduction: Traumatic injuries of young permanent teeth represent a significant challenge in endodontics. This case report aims to present a split-mouth scenario and compare the outcomes of regenerative and conventional treatment over an 18-month follow-up period.

Case report: A 14-year-old patient presented to the Clinic of Dental Pathology and Endodontics with multiple traumatic injuries in the intercanine region sustained the previous day in a bicycle accident. Clinical examination revealed edema of both lips, incisal edge fracture of tooth 11, and mild mobility of anterior teeth. Although the teeth had previously demonstrated normal pulp responsiveness, at the 8-month follow-up teeth 21 and 22 showed no response to vitality testing, and regenerative endodontic treatment was indicated for both. The regenerative endodontic protocol was performed at a high standard, following contemporary guidelines. In tooth 21, adequate intracanal bleeding was successfully induced by mechanical irritation of periapical tissues, whereas in tooth 22, despite multiple attempts, bleeding could not be achieved, and conventional endodontic treatment was performed.

Conclusion: Although both regenerative and conventional approaches resulted in clinical success and an asymptomatic status after 18 months, regenerative endodontics should be regarded as the treatment of choice in adolescents due to their unique potential for revitalization. Nevertheless, given the inherent biological variability, conventional endodontic treatment remains a reliable alternative for infection control and tooth preservation.

Keywords: regenerative endodontic procedure, maxillary incisor, dental trauma, blood clot, endodontic treatment.

OBLAST STOMATOLOGIJE: ENDODONCIJA

ANATOMSKE ZAGONETKE MEZIOBUKALNOG KORIJENA STALNOG MAKSIARNOG PRVOG MOLARA**Ema Jakubović¹, Aida Džanković², Irmira Tahmišćija², Samra Korać²**¹Nezavisni istraživač²Katedra za dentalnu patologiju s endodoncijom, Stomatološki fakultet Univerziteta u Sarajevu**SAŽETAK**

Cilj rada. Cilj istraživanja bio je analizirati korijensku kanalnu morfologiju maksilarnih prvih molara (MaxM1) primjenom kompjuterske tomografije konusnog snopa (CBCT).

Materijal i metode. U studiju je uključeno 70 CBCT snimaka (Orthophos SL, Dentsply Sirona, Njemačka) prikupljenih iz baze Stomatološkog fakulteta u Sarajevu i privatnih ordinacija. Analizirano je ukupno 100 maksilarnih prvih molara (lijevih i/ili desnih) pacijenata oba spola, starosne dobi 17–69 godina. Istraživani su broj korijenova, kanalna morfologija prema Vertuccijevoj klasifikaciji, te učestalost drugog meziobukalnog (MB2) kanala.

Rezultati. Najčešća anatomska konfiguracija MaxM1 bila je tri korijena i četiri kanala (69%). U palatinalnom i distobukalnom korijenu registrovan je Vertucci tip I u 100% slučajeva, dok je meziobukalni korijen pokazivao najveću varijabilnost, s najčešće zabilježenim tipovima I (31%), II (19%) i IV (18%). Prevalenca drugog meziobukalnog kanala (MB2) je visoka (69%). Bilateralna simetrija kod MaxM1 je primjećena u 86.67% uzoraka.

Zaključak. Rezultati naglašavaju značaj detaljne CBCT analize u planiranju i izvođenju endodontskog liječenja MaxM1.

Ključne riječi. Maksilarni prvi molar, CBCT, korijenska morfologija, meziobukalni korijen, Vertucci klasifikacija

FIELD OF DENTISTRY: ENDODONTICS

ANATOMICAL ENIGMAS OF THE MESIOBUCCAL ROOT IN THE PERMANENT MAXILLARY FIRST MOLAR**Ema Jakubović¹, Aida Džanković², Irmira Tahmišćija², Samra Korać²**¹Independent Researcher²Department of Dental Pathology and Endodontics, Faculty of Dentistry of University of Sarajevo**ABSTRACT**

Objective. The aim of this study was to analyze the root canal morphology of maxillary first molars (MaxM1) using cone-beam computed tomography (CBCT).

Materials and Methods. A total of 70 CBCT scans (Orthophos SL, Dentsply Sirona, Germany) obtained from the database of the Faculty of Dentistry in Sarajevo and private dental offices were included. The study analyzed 100 maxillary first molars (left and/or right) of patients aged 17–69 years, of both sexes. The number of roots, canal morphology according to Vertucci classifications, and the prevalence of the second mesiobuccal (MB2) canal were studied.

Results. The most common anatomical configuration of MaxM1 was three roots and four canals (69%). The palatal and distobuccal roots exhibited Vertucci type I in 100% of cases, whereas the mesiobuccal root showed the greatest variability, most frequently types I (31%), II (19%), and IV (18%). The prevalence of MB2 was high (69%). Bilateral symmetry in MaxM1 was observed in 86.67% of cases.

Conclusion. The results emphasize the importance of detailed CBCT analysis in planning and performing endodontic treatment of MaxM1.

Keywords. Maxillary first molar, CBCT, root morphology, mesiobuccal root, Vertucci classification

OBLAST STOMATOLOGIJE: ENDODONCIJA

KOMBINOVANA ENDODONTSKO-HIRURŠKA TERAPIJA PERIAPIKALNE PATOLOGIJE MANDIBULARNIH INCIZIVA SA DVA KANALA USLIJED NELIJEČENE DENTALNE TRAUME - PRIKAZ SLUČAJA

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SAŽETAK

Uvod: Neuspjeh endodontske terapije povezan je s neadekvatnim prepoznavanjem kompleksnosti endodontskog prostora i anatomskih varijacija korjenskih kanala. Savremeni dijagnostički pristupci od ključnog su značaja za precizno planiranje terapije i poboljšanje prognoze. Cilj rada je prikazati slučaj opsežne periapikalne patologije kao posljedice neliječene dentalne traume, te ukazati na značaj pravovremene dijagnostike, adekvatnog terapijskog planiranja i poznavanja anatomskih varijacija korjenskih kanala.

Materijali i metode: Prikazan je slučaj 35-godišnje pacijentice upućene radi promjene boje mandibularnog centralnog inciziva. CBCT analizom utvrđena je opsežna periapikalna lezija u regiji zuba 31, 32 i 41. Kliničkim pregledom utvrđena je negativna reakcija na testove senzibiliteta. Radiološki potvrđeno postojanje dva korjenska kanala 32 i 41, te izražena kalcifikacija pulpnog prostora zuba 31. Provedena je endodontska terapija zuba 32 i 41, dok je zbog nemogućnosti uspostavljanja prohodnosti kanala i jatrogene perforacije zub 31 indiciran za ekstrakciju uz hiruršku enukleaciju lezije.

Rezultati: Nakon provedene hemomehaničke obrade i opturacije kanala zuba 41 i 32, te hirurškog zahvata u regiji zuba 31, postignuto je uredno postoperativno cijeljenje. Kontrolni nalaz nakon dva i šest mjeseci pokazao je značajnu regresiju periapikalne lezije i znakove koštane regeneracije.

Zaključak: Rana dijagnostika i adekvatno zbrinjavanje dentalnih trauma, uz primjenu savremenih dijagnostičkih metoda i detaljno poznavanje endodontske anatomije, predstavljaju ključne faktore za uspješan terapijski ishod i prevenciju komplikacija.

Ključne riječi: dentalna trauma; mandibularni incizivi; varijacije korjenskih kanala; CBCT dijagnostika; periapikalna lezija

FIELD OF DENTISTRY: ENDODONTICS

COMBINED ENDODONTIC-SURGICAL THERAPY OF PERIAPICAL PATHOLOGY OF MANDIBULAR INCISORS WITH TWO ROOT CANALS DUE TO UNTREATED DENTAL TRAUMA – CASE REPORT

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ABSTRACT

Introduction: Failure of endodontic therapy is associated with inadequate recognition of the complexity of the endodontic space and anatomical variations of root canals. Modern diagnostic approaches are of key importance for precise treatment planning and improved prognosis. The aim of this study is to present a case of extensive periapical pathology as a consequence of untreated dental trauma, and to emphasize the importance of timely diagnosis, adequate treatment planning, and knowledge of root canal anatomical variations.

Materials and methods: A case of a 35-year-old female patient referred due to discoloration of the mandibular central incisor is presented. CBCT analysis revealed an extensive periapical lesion in the region of teeth 31, 32, and 41. Clinical examination showed a negative response to sensitivity tests. Radiological findings confirmed the presence of two root canals in teeth 32 and 41, as well as pronounced calcification of the pulp space of tooth 31. Endodontic treatment was performed on teeth 32 and 41, while due to canal patency and iatrogenic perforation, tooth 31 was indicated for extraction with surgical enucleation of the lesion.

Results: After chemo mechanical preparation and obturation of the canals of teeth 41 and 32, and surgical intervention in the region of tooth 31, uneventful postoperative healing was achieved. Follow-up after two and six months showed significant regression of the periapical lesion and signs of bone regeneration.

Conclusion: Early diagnosis and adequate management of dental trauma, along with the application of modern diagnostic methods and detailed knowledge of endodontic anatomy, are key factors for successful therapeutic outcomes and prevention of complications.

Keywords: dental trauma; mandibular incisors; root canal variations; CBCT diagnostics; periapical lesion

OBLAST STOMATOLOGIJE: ENDODONCIJA

**CBCT EVALUACIJA REGENERATIVNOG
POTENCIJALA KOSTI U GERIJATRIJSKOJ DOBI
NAKON RETRETMANA MULTIPLIH
HRONIČNIH APIKALNIH APSCESA****Madžida Halilović Mehinović¹, Edina Čolaković², Mirna
Pašić¹, Adna Begović¹, Samra Korać¹**¹Katedra za dentalnu patologiju s endodoncijom, Stomatološki
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SAŽETAK

Cilj ovog rada je prikazati koštanu regeneraciju apikalnih radiolucencija unutar tri mjeseca u osmoj deceniji života nakon retretmana šest zuba primjenom savremenih endodontskih protokola dezinfekcije i biokeramičkih materijala.

Prikaz slučaja: Pacijentica V.S. (73 godine) javila se zbog otoka sluznice, gnojne eksudacije i povremene nelagode u mandibuli. Klinički su uočene multiple fistule u interkaninoj regiji i most 33–43, dok su na OPG snimku registrovane periapikalne lezije, neadekvatna endodontska punjenja i neuspjela apikotomija zuba 32 i 33.

Plan terapije uključivao je endodontsku reviziju zuba 33–43 uz privremene krunice radi očuvanja funkcije i estetike. Uklonjene su stare keramičke krunice, a revizija je provedena mehaničkim instrumentima uz irigaciju NaOCl i EDTA. Finalna dezinfekcija postignuta je zagrijanim NaOCl i pasivnom ultrasoničnom irigacijom. Nakon medikamentoznog uložka na bazi kalcij-hidroksida tokom tri sedmice, kanali su definitivno opturirani biokeramičkim silerom, uz dodatno MTA brtvljenje zuba 32. Kontrolni CBCT nakon tri mjeseca pokazao je regresiju svih lezija.

Zaključak: Hronološka starost pacijenta nije prepreka za regeneraciju kosti ukoliko se eliminiše izvor infekcije unutar kanala korijena. Ortogradno punjenje treba biti primarni izbor kod neuspješnog endodontskog tretmana i apikotomije.

Ključne riječi: endodontska revizija, gerijatrijska stomatologija, MTA, biokeramički siler, CBCT, PUI

FIELD OF DENTISTRY: ENDODONTICS

**CBCT EVALUATION OF BONE REGENERATIVE
POTENTIAL IN A GERIATRIC PATIENT
FOLLOWING RETREATMENT OF MULTIPLE
CHRONIC APICAL ABSCESES****Madžida Halilović Mehinović¹, Edina Čolaković², Mirna
Pašić¹, Adna Begović¹, Samra Korać¹**¹Department of Dental Pathology with Endodontics, Faculty of
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ABSTRACT

The aim of this paper is to provide evidence of bone regeneration of apical radiolucencies within three months in a septuagenarian patient following the retreatment of six teeth using contemporary endodontic disinfection protocols and bioceramic materials.

Case Report: Patient V.S. (73 years old) presented with mucosal swelling, purulent exudation, and occasional discomfort in the mandible. Clinical examination revealed multiple fistulas in the intercanine region and a bridge from teeth 33–43, while the OPG showed periapical lesions, inadequate endodontic fillings, and failed apicoectomy of teeth 32 and 33.

The treatment plan included endodontic retreatment of teeth 33–43 with temporary crowns to preserve function and esthetics. Old ceramic crowns were removed, and retreatment was performed using rotary instruments with NaOCl and EDTA irrigation. Final disinfection was achieved with heated NaOCl and passive ultrasonic irrigation. After a calcium hydroxide intracanal medicament for three weeks, the canals were obturated with a bioceramic sealer, with additional MTA sealing of tooth 32. Follow-up CBCT after three months showed regression of all lesions.

Conclusion: The patient's chronological age is not a barrier to bone regeneration, as long as the root canal infection is eliminated. Orthograde filling should be the primary choice in cases of failed endodontic treatment and apicoectomy.

Keywords: endodontic retreatment, geriatric dentistry, MTA, bioceramic sealer, CBCT, PUI

OBLAST STOMATOLOGIJE: ENDODONCIJA

KADA ENDODONCIJA NE IDE PO PLANU: STRATEGIJE ZA RJEŠAVANJE KLINIČKIH KOMPLIKACIJA, PRIKAZ SLUČAJA**Mirna Pašić¹, Alma Konjhodžić¹, Sanja Hadžić², Zerina Kučinar³, Adna Begović¹, Madžida Halilović Mehinović¹**¹Katedra za dentalnu patologiju s endodoncijom, Stomatološki fakultet, Univerzitet u Sarajevu²Katedra za oralnu medicinu i parodontologiju, Stomatološki fakultet, Univerzitet u Sarajevu³Katedra za preventivnu stomatologiju i pedodonciju, Stomatološki fakultet, Univerzitet u Sarajevu

SAŽETAK

Uvod: Mandibularni sjekutići predstavljaju veliki izazov sa aspekta endodontskog liječenja zuba. Trauma zuba, učestala u ovoj regiji, dodatno komplikuje prognozu inducirajući procese obliteracije korijenskog kanala.

Prikaz slučaja: Petnaestogodišnji pacijent javio se zbog boli i otoka u regiji brade i desnog obraza. Intraoralno je uočen vestibularni eritem u projekciji apeksa zuba 41 i 42. RVG snimak pokazao je periapikalnu radiolucenciju promjera 9,67 mm, uz negativan test vitaliteta. Nakon trepanacije, iz zuba 41 dobivena je gnojna eksudacija. Pri pokušaju obrade zuba 42 došlo je do obilnog krvarenja, te je pacijent upućen na dalju dijagnostiku. Novim RVG snimkom utvrđena je perforacija u koronarnom dijelu korijena. Nakon zatvaranja postojećeg pristupa, uz pomoć dentalnog mikroskopa uspješno je pronađen i obrađen kanal. Primijenjen je Ca(OH)₂, a potom i definitivno punjenje gutaperkom i epoksi silerom. Hirurškim zahvatom perforacija je zatvorena MTA materijalom.

Zaključak: Mikro-endodontski pristup uz upotrebu dentalnog mikroskopa i CBCT-a ključan je za izbjegavanje jatrogenih grešaka i sigurno lociranje kanala.

Gljučne riječi: mandibularni sjekutići, perforacija korijena, obliteracija, dentalni mikroskop, MTA.

FIELD OF DENTISTRY: ENDODONTICS

CHALLENGING ENDODONTIC CASES: STRATEGIES FOR OVERCOMING CLINICAL COMPLICATIONS, CASE REPORT**Mirna Pašić¹, Alma Konjhodžić¹, Sanja Hadžić², Zerina Kučinar³, Adna Begović¹, Madžida Halilović Mehinović¹**¹Department of Dental Pathology with Endodontics, Faculty of Dentistry, University of Sarajevo²Department of Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo³Department of Preventive Dentistry and Pedodontics, Faculty of Dentistry, University of Sarajevo

ABSTRACT

Introduction: Mandibular incisors represent a significant endodontic challenge due to pronounced mesiodistal root compression and a high prevalence of additional canals. Furthermore, frequent dental trauma in this region complicates the prognosis by inducing root canal obliteration.

Case Report: A 15-year-old patient presented with pain and swelling in the chin and right cheek region. Intraoral examination revealed vestibular erythema in the projection of the apices of teeth 41 and 42. An RVG radiograph demonstrated a periapical radiolucency measuring 9.67 mm, with a negative vitality test. Following trepanation, purulent exudate was obtained from tooth 41. During the attempt to instrument tooth 42, profuse bleeding occurred, and the patient was referred for further diagnostics. A subsequent RVG radiograph confirmed a perforation in the coronal part of the root. After sealing the existing access cavity, a new access was established, and with the aid of a dental microscope, the root canal was successfully located and instrumented. Calcium hydroxide was applied, followed by definitive obturation using gutta-percha and an epoxy resin-based sealer. The perforation was surgically managed and successfully sealed using MTA.

Conclusion: A micro-endodontic approach, supported by the use of a dental microscope and CBCT, is essential for preventing iatrogenic errors and ensuring accurate canal localization.

Keywords: mandibular incisors, root perforation, obliteration, dental microscope, MTA.

OBLAST STOMATOLOGIJE: MAKSILOFACIJALNA HIRURGIJA

REKONSTRUKCIJA POSTOPERATIVNIH DEFEKATA MAKSILOFACIJALNE REGIJE SLOBODNIM KOŽNIM TRANSPLANTATOM PO WOLFE-U U LOKALNOJ ANESTEZIJI: PRIKAZ SERIJE SLUČAJEVA

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SAŽETAK

Uvod: Savremeni trendovi u sekundarnim privatnim zdravstvenim ustanovama sve više teže modelu jednodnevne hirurgije. U maksilofacijalnoj hirurgiji, to podrazumijeva izvođenje kompleksnih rekonstruktivnih zahvata u lokalnoj anesteziji, čime se postiže brži oporavak pacijenta uz značajno smanjenje operativnog rizika i troškova liječenja.

Cilj rada: Prikazati efikasnost i opravdanost primjene slobodnog kožnog transplantata pune debljine (po Wolfe-u) u rekonstrukciji defekata nakon ekscizije tumora maksilofacijalne regije u uslovima lokalne anestezije.

Prikaz slučaja: Rad analizira tri pacijenta gerijatrijske populacije sa dijagnozama bazocelularnog (BCC) i planocelularnog karcinoma (PCC) u regijama čela i sljepočnice. Zbog prisutnih komorbiditeta i obima promjena, hirurški tretman je sproveden u lokalnoj anesteziji. Nakon radikalne ekscizije tumora, defekti su rekonstruisani slobodnim transplantatima uzetim sa supraklavikularne lože i nadlaktice. Kod svih pacijenata postignut je uredan postoperativni tok, uz adekvatan estetski i funkcionalni ishod. Histopatološki nalazi potvrdili su radikalnost operacija (u cjelini), a tokom kontrolnog perioda nisu uočeni recidivi ni metastatske promjene.

Zaključak: Primena slobodnih kožnih transplantata u lokalnoj anesteziji predstavlja bezbjednu i pouzdanu metodu za zbrinjavanje onkoloških pacijenata u okviru jednodnevne hirurgije. Ovakav pristup značajno štedi vrijeme, materijalna sredstva i ljudske resurse, bez kompromitovanja kvaliteta liječenja i onkoloških principa.

Ključne riječi: maksilofacijalna hirurgija, Wolfe transplantat, lokalna anestezija, onkohirurgija, jednodnevna hirurgija.

FIELD OF DENTISTRY: MAXILLOFACIAL SURGERY

RECONSTRUCTION OF POSTOPERATIVE MAXILLOFACIAL DEFECTS USING WOLFE FULL-THICKNESS SKIN GRAFTS UNDER LOCAL ANESTHESIA: A CASE SERIES

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ABSTRACT

Introduction: Contemporary trends in secondary private healthcare facilities increasingly favor the day-surgery model. In maxillofacial surgery, this involves performing complex reconstructive procedures under local anesthesia, ensuring faster patient recovery while significantly reducing operative risks and healthcare costs.

Objective: To demonstrate the efficacy and justification of using Wolfe full-thickness skin grafts for the reconstruction of defects following tumor excision in the maxillofacial region under local anesthesia.

Case Series: This paper analyzes three geriatric patients diagnosed with basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) in the frontal and temporal regions. Due to comorbidities and the extent of the lesions, surgical treatment was performed under local anesthesia. Following radical tumor excision, the defects were reconstructed using full-thickness grafts harvested from the supraclavicular fossa and the upper arm. All patients achieved a smooth postoperative recovery with adequate aesthetic and functional outcomes. Histopathological findings confirmed radical excision (in toto), and no recurrences or metastatic changes were observed during the follow-up period.

Conclusion: The application of full-thickness skin grafts under local anesthesia is a safe and reliable method for managing oncological patients within a day-surgery framework. This approach significantly saves time, material resources, and personnel, without compromising the quality of treatment or oncological principles.

Keywords: maxillofacial surgery, Wolfe graft, local anesthesia, surgical oncology, day surgery.

OBLAST STOMATOLOGIJE: MAKSILOFACIJALNA HIRURGIJA

**ŽIVOTNO UGROŽAVAJAĆE DENTOGENE
INFEKCIJE – KLINIČKI TOK I PRINCIPI
LIJEČENJA****Džejla Bećirović**

Privatna stomatološka ordinacija Lorica dent Sarajevo

SAŽETAK

Uvod: Dentogene infekcije su česte u stomatološkoj praksi, ali u određenim slučajevima mogu progredirati u životno ugrožavajuća stanja. Širenjem u duboke fascijalne prostore glave i vrata mogu dovesti do opstrukcije disajnih puteva, sepe i intrakranijalnih komplikacija, što zahtijeva hitan terapijski pristup u maksilofacijalnoj hirurgiji.

Cilj rada: Prikazati neke od životno ugrožavajućih dentogenih infekcija, njihov klinički tok, dijagnostičke izazove i osnovne principe liječenja.

Materijali i metode: Rad se zasniva na preglednoj analizi savremene literature i kliničkih karakteristika najtežih oblika dentogenih infekcija, uključujući Ludwigovu anginu, nekrotizirajući fasciitis i trombozu kavernoznog sinusa.

Rezultati: Infekcije najčešće potiču od donjih molara te se šire u submandibularne i parafaringealne prostore. Kliničku sliku karakterišu trizmus, disfagija, dispneja i febrilnost. Pravovremena dijagnoza i adekvatna terapija, uključujući inciziju i drenažu, intravensku antibiotsku terapiju i osiguranje disajnog puta, ključni su za povoljan ishod.

Zaključak: Rano prepoznavanje i pravovremeno liječenje dentogenih infekcija od presudnog su značaja za sprečavanje teških komplikacija. Kontinuirana edukacija i multidisciplinarni pristup doprinose smanjenju morbiditeta i mortaliteta.

Ključne riječi: dentogene infekcije, Ludwigova angina, maksilofacijalna hirurgija, duboki fascijalni prostori, komplikacije.

FIELD OF DENTISTRY: MAXILLOFACIAL SURGERY

**LIFE-THREATENING ODONTOGENIC INFECTIONS –
CLINICAL COURSE AND PRINCIPLES OF
TREATMENT****Džejla Bećirović**

Private dental office Lorica dent Sarajevo

ABSTRACT

Introduction: Odontogenic infections are common in dental practice, but in certain cases they may progress into life-threatening conditions. By spreading into the deep fascial spaces of the head and neck, they can lead to airway obstruction, sepsis, and intracranial complications, requiring urgent treatment in Maxillofacial Surgery.

Aim: To present some life-threatening odontogenic infections, their clinical course, diagnostic challenges, and the basic principles of treatment.

Materials and Methods: This paper is based on a review of contemporary literature and the clinical characteristics of the most severe forms of odontogenic infections, including Ludwig's Angina, Necrotizing Fasciitis, and Cavernous Sinus Thrombosis.

Results: These infections most commonly originate from the lower molars and spread into the submandibular and parapharyngeal spaces. The clinical presentation is characterized by trismus, dysphagia, dyspnea, and fever. Timely diagnosis and adequate therapy, including incision and drainage, intravenous antibiotic therapy, and airway management, are crucial for a favorable outcome.

Conclusion: Early recognition and timely treatment of odontogenic infections are essential for preventing severe complications. Continuous education and a multidisciplinary approach contribute to reducing morbidity and mortality.

Keywords: odontogenic infections, Ludwig's angina, maxillofacial surgery, deep fascial spaces, complications.

OBLAST STOMATOLOGIJE: OPŠTA STOMATOLOŠKA PRAKSA

PROCJENA ZNANJA, STAVOVA I PRAKSE PRIMJENE UMJETNE INTELIGENCIJE U STOMATOLOGIJI MEĐU STUDENTIMA STOMATOLOŠKOG FAKULTETA UNIVERZITETA U SARAJEVU

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SAŽETAK

Uvod: Savremeni razvoj digitalnih tehnologija i umjetne inteligencije (AI) značajno transformiše dijagnostičke i terapijske protokole u stomatologiji. Efikasna integracija ovih sistema primarno zavisi od znanja i stavova budućih stomatologa. Cilj istraživanja je procijeniti znanje, stavove i praksu primjene AI alata među studentima završnih godina Stomatološkog fakulteta Univerziteta u Sarajevu.

Ispitanici i metode: Presječna studija provedena na Stomatološkom fakultetu Univerziteta u Sarajevu, uz informirani pristanak ispitanika. Istraživanje je obuhvatilo ukupno 96 studenata, oba spola, popunjavanjem online strukturiranog upitnika od ukupno 36 pitanja, prethodno zasnovanog na validiranim radovima. Upitnik je analizirao opće demografske podatke, znanje o AI, stavove o kliničkoj primjeni AI i specifičnu upotrebu AI alata u edukaciji.

Rezultati i diskusija istraživanja: ispitanici su pokazali solidno predznanje o upotrebi AI u stomatologiji, koje su većinom sticali iz neformalnih izvora informacija. Iskazani su pozitivni stavovi o upotrebi AI u različitim specijalističkim granama stomatologije. Ispitanici poprilično koriste ChatGPT i druge AI alate u svakodnevnom edukativnim i socijalnim aktivnostima. Navedeni rezultati su u opsegu nalaza recentnih istraživanja drugih autora na zadatu temu.

Zaključci: U obrazovnom segmentu potrebno je posvetiti pažnju na pravilnoj i usmjerenoj edukaciji studenata po ovom pitanju, sa kritičkim pristupom stomatologije zasnovane na dokazima.

Ključne riječi: umjetna inteligencija, studenti stomatologije, klinička primjena, znanje, stavovi i praksa

FIELD OF DENTISTRY: GENERAL DENTAL PRACTICE

ASSESSMENT OF KNOWLEDGE, ATTITUDES, AND PRACTICES REGARDING THE USE OF ARTIFICIAL INTELLIGENCE IN DENTISTRY AMONG STUDENTS OF THE FACULTY OF DENTISTRY OF UNIVERSITY OF SARAJEVO

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ABSTRACT

Introduction: The development of digital technologies and Artificial Intelligence (AI) is significantly transforming diagnostic and therapeutic protocols in dentistry. The effective integration of these systems depends on the knowledge and attitudes of future dentists. The aim of this study was to assess the knowledge, attitudes, and practices related to the use of AI tools among final-year students of the Faculty of Dentistry at the University of Sarajevo.

Participants and Methods: This cross-sectional study was conducted at the Faculty of Dentistry, University of Sarajevo, with the informed consent of the participating students. The research included a total of 96 students of both sexes. Data were collected using a structured online questionnaire consisting of 36 questions, previously based on validated studies. The questionnaire analyzed general demographic data, knowledge of AI, attitudes toward the clinical application of AI, and the specific use of AI tools in education.

Results and Discussion: The participating demonstrated a solid level of prior knowledge about the use of AI in dentistry, which they mostly acquired from informal sources of information. Generally positive attitudes toward the use of AI in various dental specialties were reported. These results are consistent with findings from recent studies by other authors on the same topic.

Conclusion: Within the educational framework of the faculty, greater attention should be devoted to proper and structured student education on this topic, with a critical approach based on evidence-based dentistry.

Keywords: artificial intelligence, dental students, clinical application, knowledge, attitudes, and practice.

OBLAST STOMATOLOGIJE: ORALNA HIRURGIJA

RAZLIKE IZMEĐU PREPORUČENIH SMJERNICA I KLINIČKE REALNOSTI U PREVENCIJI I LIJEČENJU MRONJ-A**Anela Hardaga- Muzurović¹, Sadeta Šečić²**¹Klinika za oralnu hirurgiju, Univerzitet u Sarajevu - Stomatološki klinički centar²Katedra za oralnu hirurgiju sa dentalnom implantologijom, Univerzitet u Sarajevu - Stomatološki fakultet**SAŽETAK**

Uvod: Medikamentima uzrokovana osteonekroza viličnih kostiju (MRONJ) predstavlja tešku posljedičnu komplikaciju, često neizlječivu, koja najčešće nastaje kod onkoloških pacijenata na antiresorptivnoj terapiji. Njihova primjena u svakodnevnoj kliničkoj praksi često je ograničena zbog heterogenosti pacijenata, terapijskih protokola i samog ustroja zdravstvenog sistema. Cilj ovog rada je analizirati razlike i odstupanja između postojećih preventivnih smjernica i stvarnih kliničkih okolnosti u oralnohirurškoj praksi, s posebnim osvrtom na procjenu rizika i donošenje terapijskih odluka prije invazivnih zahvata.

Materijali i metode: Rad je baziran na analizi relevantne literature pregledane putem PubMed i Scopus naučnih baza podataka, uz fokus na strategije prevencije i savremene međunarodne smjernice liječenja MRONJ-a. Urađena je komparativna analiza preporučenih protokola i kliničkih izazova s kojima se susreću oralni hirurzi u svakodnevnom radu.

Rezultati: Analiza ukazuje na značajne razlike između teorijskih preporuka i kliničke primjenjivosti, naročito u pogledu procjene individualnog rizika, trajanja prekida terapije (drug holiday), indikacija za ekstrakciju zuba te interdisciplinarnu saradnje oralnog hirurga i onkologa. Nedostatak standardiziranog modela procjene rizika doprinosi varijabilnost kliničkih odluka.

Zaključak: Postojeće smjernice predstavljaju važan okvir za prevenciju MRONJ-a, ali ne odražavaju u potpunosti kompleksnost kliničke realnosti. Razvoj praktičnih, individualiziranih i kliničkih primjenjivih protokola za procjenu rizika mogao bi unaprijediti donošenje terapijskih odluka i smanjiti incidenciju MRONJ-a u svakodnevnoj kliničkoj praksi.

Ključne riječi: MRONJ, bisfosfonati, prevencija, kliničke smjernice, procjena rizika.

FIELD OF DENTISTRY: ORAL SURGERY

DIFFERENCES BETWEEN RECOMMENDED GUIDELINES AND CLINICAL REALITY IN THE PREVENTION AND MANAGEMENT OF MRONJ**Anela Hardaga- Muzurović¹, Sadeta Šečić²**¹Oral Surgery Clinic, University of Sarajevo- Dental Clinical Center²Department of Oral Surgery with Dental Implantology, University of Sarajevo - Faculty of Dentistry**ABSTRACT**

Introduction: Medication-related osteonecrosis of the jaw (MRONJ) represents a severe and often incurable complication that most commonly occurs in oncological patients receiving antiresorptive therapy. Their implementation in everyday clinical practice is often limited due to the heterogeneity of patients, therapeutic protocols and the structure of the healthcare system itself. The aim of this paper is to analyze the differences and deviations between existing preventive guidelines and real clinical circumstances in oral surgery practice, with particular emphasis on risk assessment and therapeutic decision-making prior to invasive procedures.

Materials and Methods: The study is based on the analysis of relevant literature reviewed through the PubMed and Scopus scientific databases, with a focus on prevention strategies and contemporary international guidelines for the treatment of MRONJ. A comparative analysis of recommended protocols and clinical challenges encountered by oral surgeons in everyday practice was performed.

Results: The analysis indicates significant differences between theoretical recommendations and clinical applicability, particularly regarding the assessment of individual risk, the duration of therapy interruption, indications for tooth extraction, and interdisciplinary collaboration between oral surgeons and oncologists. The lack of a standardized risk assessment model contributes to variability in clinical decision-making.

Conclusion: Existing guidelines represent an important framework for the prevention of MRONJ, but they do not fully reflect the complexity of clinical reality. The development of practical, individualized and clinically applicable protocols for risk assessment could improve therapeutic decision-making and reduce the incidence of MRONJ in everyday clinical practice.

Keywords: MRONJ, bisphosphonates, prevention, clinical guidelines, risk assessment.

OBLAST STOMATOLOGIJE: ORALNA HIRURGIJA

HEILOPLASTIKA REDUNDANTNE SLUZNICE DONJE USNE**Monika Šunjić¹, Ružica Zovko^{1,2}, Inge Šarac³, Stipo Cvitanović^{1,4}, Zdenko Šarac^{1,3}**¹Medicinski fakultet Sveučilišta u Mostaru²Dom zdravlja Mostar³Stomatološka ordinacija dr. Šarac Mostar⁴Dom zdravlja Prozor-Rama**SAŽETAK**

Uvod: Redundantna sluznica usne (mucosa labii redundans) je patološko stanje karakterizirano povećanjem količine i površine sluzničkog tkiva uslijed hiperplazije submukoznog vezivnog tkiva, što rezultira formiranjem suvišnih, često naboranih mukoznih struktura vidljivih pri funkcionalnim potezima usne. Mogući etiološki čimbenik je kronična mehanička iritacija.

Materijali i metode: Kirurški zahvat se izvodi u lokalnoj anesteziji, primjenom standardnih instrumenata za eksciziju mekotkivnih lezija. Ekscizija lezije provodi se skalpelom uz maksimalno očuvanje okolnih anatomskih struktura. Rana cijeli sekundarno zbog prilagodbe epitelizacije, tkivnih slojeva i estetskih zahtjeva zahvata (vermilioniska zona). Dobiveni preparat se upućuje na patohistološku analizu. Preliminarna klinička dijagnoza upućuje na hiperplaziju sluznice.

Rezultati: Hiperplastične lezije sluznice usne, uključujući klinički prezentiranu redundantnu sluznicu, najčešće nastaju kao posljedica kronične mehaničke iritacije, mogu dugo perzistirati bez značajne progresije. Unatoč benignom karakteru, njihova lokalizacija u estetski eksponiranim regijama zahtijeva pažljivo kirurško planiranje i preciznu izvedbu zahvata.

Zaključak: Kirurška ekscizija skalpelom može predstavljati metodu izbora u ovakvim slučajevima zbog bolje kontrole resekcijskih rubova, minimalnog oštećenja okolnog tkiva i povoljnijeg postoperativnog tijeka u odnosu na termokauter.

Ključne riječi: heiloplastika, ekscizija, hiperplazija

FIELD OF DENTISTRY: ORAL SURGERY

CHEILOPLASTY OF REDUNDANT LOWER LIP MUCOSA**Monika Šunjić¹, Ružica Zovko^{1,2}, Inge Šarac³, Stipo Cvitanović^{1,4}, Zdenko Šarac^{1,3}**¹Faculty of Medicine, University of Mostar²Primary Health Care Center Mostar³Dental Practice Dr. Šarac Mostar⁴Primary Health Care Center Prozor-Rama**ABSTRACT**

Introduction: Redundant labial mucosa (mucosa labii redundans) is a pathological condition characterized by an increase in the quantity and surface area of the lip mucosal tissue due to hyperplasia of the submucosal connective tissue, resulting in the formation of excess, often folded mucosal structures visible during functional movements of the lip. A possible etiological factor was chronic mechanical irritation.

Materials and methods: The surgical procedure was performed under local anesthesia using standard instruments for soft tissue excision. Excision of the lesion was carried out with a scalpel, with maximal preservation of surrounding anatomical structures. The wound healed by secondary intention to allow proper epithelialization, tissue adaptation, and to meet aesthetic requirements (vermilion border). The preliminary clinical diagnosis suggested mucosal hyperplasia.

Results: Hyperplastic lesions of the lip mucosa, clinically presenting as redundant mucosa, most commonly arise as a result of chronic mechanical irritation and may persist for extended periods without significant progression.

Despite their benign nature, their location in aesthetically exposed regions requires careful surgical planning and precise execution.

Conclusion: Surgical excision with a scalpel may represent the method of choice in such cases due to better control of resection margins, minimal trauma to surrounding tissues, and a more favorable postoperative course compared to electrocautery.

Keywords: cheiloplasty, excision, hyperplasia

OBLAST STOMATOLOGIJE: ORALNA MEDICINA

PEMPHIGUS VULGARIS: ZNAČAJ STOMATOLOŠKOG PREGLEDA U FAZI REMISIJE – PRIKAZ SLUČAJA

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SAŽETAK

Uvod: Pemphigus vulgaris je hronična autoimuna bulozna bolest koja zahvata kožu i oralnu sluznicu, pri čemu oralne manifestacije često imaju važnu dijagnostičku ulogu.

Cilj istraživanja: Cilj rada je prikazati kliničke karakteristike oralnih promjena kod pacijentice sa Pemphigus vulgaris u fazi remisije, te naglasiti značaj stomatološkog pregleda u praćenju bolesti.

Materijal i metode: Prikaz slučaja pacijentice sa ranije dijagnostikovanom Pemphigus vulgaris koja se javlja na stomatološki pregled u fazi remisije. Analizirani su anamnestički podaci, medicinska dokumentacija i klinički nalaz oralne sluznice.

Rezultati: Prema anamnestičkim podacima, bolest je započela pojavom bula i erozija na koži, nakon čega dolazi do zahvatanja oralne sluznice sa bolnim ulceracijama. Inicijalna terapija sistemskim kortikosteroidima nije dala zadovoljavajući odgovor, te je uvedena biološka terapija koja je dovela do remisije. Kliničkim regledom uočeno je ožiljno, zadebljano tkivo na mjestima prethodnih ulceracija, bez prisustva aktivnih lezija.

Zaključak: Rad naglašava značaj stomatologa u prepoznavanju aktivnih i rezidualnih promjena oralne sluznice kod Pemphigus vulgaris, kao i važnost diferencijalne dijagnoze u odnosu na oralni lichen planus i pemfigoid mukozne membrane. Interdisciplinarna saradnja i kontinuirano praćenje pacijenata ključni su za uspješno vođenje bolesti.

Ključne riječi: pemphigus vulgaris, oralna sluznica, autoimune bolesti, diferencijalna dijagnoza, stomatološki pregled.

FIELD OF DENTISTRY: ORAL MEDICINE

PEMPHIGUS VULGARIS: THE IMPORTANCE OF DENTAL EXAMINATION IN THE REMISSION PHASE- A CASE REPORT

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ABSTRACT

Introduction: Pemphigus vulgaris is a chronic autoimmune bullous disorder affecting the skin and oral mucosa, with oral manifestations often playing a pivotal role in early diagnosis.

Objective: To present the clinical features of oral lesions in a patient with Pemphigus vulgaris during remission and to emphasize the role of dental examination in disease monitoring.

Materials and methods: This paper presents a case report of a patient with a previously established diagnosis of Pemphigus vulgaris who attended a dental examination during the remission phase. Medical history, relevant documentation, and clinical findings of the oral mucosa were evaluated.

Results: According to the patient's history, the disease initially presented with bullae and erosions on the skin, followed by involvement of the oral mucosa characterized by painful ulcerations. Initial treatment with systemic corticosteroids yielded an inadequate therapeutic response; therefore, biologic therapy was introduced, resulting in remission. Clinical intraoral examination revealed fibrotic and thickened tissue at sites of previous ulcerations, without evidence of active lesions.

Conclusion: This case highlights the significant role of the dentist in recognizing both active and residual oral mucosal changes in Pemphigus vulgaris, as well as the importance of differential diagnosis in relation to oral lichen planus and mucous membrane pemphigoid. Interdisciplinary collaboration and continuous follow-up are essential for optimal disease management.

Keywords: pemphigus vulgaris, oral mucosa, autoimmune diseases, differential diagnosis, dental examination.

OBLAST STOMATOLOGIJE: ORTODONCIJA

ANALIZA UČESTALOSTI TRANSVERZALNIH OKLUZALNIH ANOMALIJA**Matea Karačić¹, Lucija Bilac², Ines Musa Trolić³**¹Privatna stomatološka ordinacija²Poliklinika Musa Mostar³Studij dentalne medicine, Medicinski fakultet Sveučilišta u Mostaru**SAŽETAK**

Uvod: Transverzalne malokluzije predstavljaju poremećaje odnosa gornjih i donjih stražnjih zuba, pri čemu dolazi do nepravilne okluzije. Obuhvataju unilateralni i bilateralni križni zagriz te škarasti zagriz. Križni zagriz karakterizira obrnut odnos bukalnih i lingvalnih kvržica, dok je škarasti zagriz poseban oblik bez tuberkulo-fisurnog kontakta, uz mimoilaženje zuba u bukalnom ili lingvalnom smjeru.

Materijali i metode: Uz odobrenje Poliklinike Musa, analizirana je baza intraoralnih skenova dobijenih uređajem Primescan (Dentsply Sirona, Njemačka). U periodu od 01.01.2021. do 01.01.2025. godine izdvojeno je 106 pacijenata s transverzalnim okluzalnim anomalijama od ukupno 508 pregledanih. Pacijenti su analizirani prema spolu, vrsti anomalije, te jednostranoj ili obostranoj pojavnosti, uključujući lokalizaciju po kvadrantima. Podaci su obrađeni u programu Microsoft Excel.

Rezultati: Istraživanje je obuhvaćalo 508 pacijenata Poliklinike Musa koji su snimani intraoralnim skenerom. 106 pacijenata je imalo neku vrstu transverzalne okluzalne anomalije. Dakle, učestalost transverzalnih okluzalnih anomalija u pregledanih ortodontskih pacijenata je 20,87 %.

Zaključak: Transverzalne okluzalne anomalije prisutne su kod približno petine ortodontskih pacijenata. Pravovremena dijagnoza i adekvatna terapija od ključnog su značaja za uspješno ortodontsko liječenje.

Ključne riječi: malokluzija, transverzalne okluzalne anomalije, križni zagriz, škarasti zagriz, ortodoncija

FIELD OF DENTISTRY: ORTODONTICS

ANALYSIS OF THE PREVALENCE OF TRANSVERSE OCCLUSAL ANOMALIES**Matea Karačić¹, Lucija Bilac², Ines Musa Trolić³**¹Private Dental Practice²Musa Polyclinic Mostar³Study of Dental Medicine, Faculty of Medicine of University of Mostar**ABSTRACT**

Introduction: Transverse malocclusions represent disturbances in the relationship between the upper and lower posterior teeth, resulting in improper occlusion. They include unilateral and bilateral crossbite as well as scissor bite. Crossbite is characterized by an inverted relationship between buccal and lingual cusps, whereas scissor bite represents a specific form without tubercle-fossa contact, with teeth overlapping in a buccal or lingual direction.

Materials and Methods: With the approval of Musa Polyclinic, a database of intraoral scans obtained using the Primescan device (Dentsply Sirona, Germany) was analyzed. In the period from January 1, 2021, to January 1, 2025, 106 patients with transverse occlusal anomalies were identified out of 508 examined patients. Patients were analyzed according to gender, type of anomaly, and unilateral or bilateral occurrence, including localization by quadrant. Data were processed using Microsoft Excel.

Results: The study included 508 patients examined with an intraoral scanner, of whom 106 presented with transverse occlusal anomalies, representing a prevalence of 20.87%.

Conclusion: Transverse occlusal anomalies are present in approximately one-fifth of orthodontic patients. Early diagnosis and appropriate therapy are essential for successful orthodontic treatment.

Keywords: malocclusion, transverse occlusal anomalies, crossbite, scissor bite, orthodontics

OBLAST STOMATOLOGIJE: ORTODONCIJA

POVEZANOST MALOKLUZIJA I POSTURE GLAVE I VRATA

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SAŽETAK

Uvod: Povezanost između malokluzije i tjelesne posture sve je češći predmet istraživanja zbog anatomske i funkcionalne povezanosti stomatognatnog sistema sa kraniocervikalnim segmentom i sistemom za kontrolu držanja tijela. Iako brojna istraživanja ukazuju na moguću povezanost između okluzijskih poremećaja i posturalnih odstupanja, klinički značaj i priroda ove veze još uvijek nisu u potpunosti razjašnjeni. Dob 10-12 godina je optimalni period za ortodontski tretman u kojem se treba razmatrati postura glave i vrata.

Cilj: Cilj ove studije jeste analizirati povezanost različitih tipova malokluzija i posture glave i vrata.

Materijal i metode: Analiza je obuhvatila uzorak od 40 lateralnih kefalogram snimaka pacijenata kojima je potreban ortodontski tretman. Dvadeset dječaka i dvadeset djevojčica dobi od 10 do 14 godina snimani su u prirodnom položaju glave. Snimci su zadovoljavajuće radiografske kvalitete, optimalnog kontrasta, oštirine i detalja. Na lateralnom kefalogramu mjereni su ugao ANB (definira anteroposteriorne odnose gornje i donje vilice), ugao baza (Mxp- Mdp) i visina lica (SGo/ NMe x 100). Pored standardne analize lateralnog kefalogram snimka urađeno je i mjerenje kraniocervikalnih NSL/OPT i NSL/CVT uglova, koji nam govore o povezanosti položaja glave i vratnih kralježaka.

Zaključak: Povezanost različitih tipova malokluzija i posture glave i vrata su važni za dijagnostički protokol, a time i za planiranje ortodontske terapije.

Ključne riječi: ANB ugao, visina lica, malokluzija, postura glave i vrata, lateralni kefalogram

FIELD OF DENTISTRY: ORTODONTICS

CORRELATION BETWEEN MALOCCLUSIONS AND HEAD AND NECK POSTURE

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ABSTRACT

Introduction: The relationship between malocclusion and body posture is becoming a subject of research due to the anatomical and functional connection between the stomatognathic system, the craniocervical region, and the postural control system. Although numerous studies suggest a possible association between occlusal disorders and postural deviations, the clinical significance and nature of this relationship have not yet been fully clarified. The age of 10–12 years represents an optimal period for orthodontic treatment during which head and neck posture should be considered.

Objective: To assess the correlation between different types of malocclusions and head and neck posture.

Materials and Methods: The analysis included a sample of 40 lateral cephalograms of patients requiring orthodontic treatment. Twenty boys and twenty girls aged 10 to 14 were recorded in a natural head position. The radiographs were of satisfactory quality, with optimal contrast, sharpness, and detail. On the lateral cephalogram, the ANB angle (anteroposterior relationship of the maxilla and mandible), the base angle (MxP–MdP), and facial height (SGo/NMe x 100) were measured. In addition to the standard lateral cephalometric analysis, measurements of the craniocervical angles NSL/OPT and NSL/CVT were performed, indicating the relationship between head position and cervical vertebrae.

Conclusion: The relationship between different types of malocclusions and head and neck posture is important for the diagnostic protocol and orthodontic therapy.

Keywords: ANB angle, facial height, malocclusion, head and neck posture, lateral cephalogram

OBLAST STOMATOLOGIJE: PARODONTOLOGIJA

MHEALTH MONITORING ORALNE HIGIJENE I HIGIJENSKIH NAVIKA KOD ODRASLIH PACIJENATA SA GINGIVITISOM PUTEM MOBILNE APLIKACIJE „NUTRI-DENT“**Adis Salihefendić**

Privatna stomatološka ordinacija "A-DENT", Gračanica

SAŽETAK

Uvod: Savremena preventivna stomatologija sve više se oslanja na kontinuirani digitalni monitoring umjesto jednokratne edukacije pacijenata, s ciljem dugoročnog poboljšanja higijenskih navika i prevencije oralnih bolesti. Gingivitis, kao reverzibilno inflamatorno stanje koje brzo reaguje na promjene oralne higijene u periodu od 7 do 28 dana, predstavlja pogodan i klinički relevantan model za procjenu efekata digitalne adherencije.

Cilj studije bio je procijeniti učestalost provođenja, nivo adherencije i kliničke promjene odraslih pacijenata korištenjem mHealth prototip-aplikacije Nutri-Dent, verzije 0.1.1.

Metodologija: U istraživanju je učestvovalo 30 odraslih ispitanika starosti 25–45 godina, podijeljenih u dvije grupe: grupa sa gingivitisom (n=15) i grupa sa zdravom gingivom (n=15). Tokom perioda od 28 dana ispitanici su koristili pre-alpha verziju aplikacije Nutri-Dent, koja je uključivala jutarnje i večernje podsjetnike, kao i sistem potvrde zadanih postupaka oralne higijene uz praćenje u realnom vremenu od strane stomatologa. Adherencija je kvantifikovana primjenom digitalnog indeksa higijene (DIH).

Rezultati: Kod pacijenata sa gingivitisom bilježi se veći relativni porast DIH vrijednosti, uz izražen pad motivacije i učestalije preskakanje večernje oralne higijene. Primjena interdentalne četkice bile su najčešće preskakana radnja (41%). Nakon 28 dana zabilježeno je značajno smanjenje PI (~50%), GI (~50%) i BOP (~19%), bez dodatnih terapijskih intervencija ili korekcije ishrane.

Zaključak: Digitalni monitoring oralne higijene putem aplikacije Nutri-Dent pokazao je značajan potencijal u poboljšanju higijenskih navika i kliničkih parametara, potvrđujući vrijednost kontinuirane mHealth podrške u savremenoj prevenciji gingivitisa.

Ključne riječi: digitalni monitoring, oralna higijena, gingivitis, mHealth, adherencija

FIELD OF DENTISTRY: PERIODONTOLOGY

MHEALTH MONITORING OF ORAL HYGIENE AND HYGIENIC HABITS IN ADULT PATIENTS WITH GINGIVITIS USING THE MOBILE APPLICATION NUTRI-DENT**Adis Salihefendić**

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ABSTRACT

Introduction: Contemporary preventive dentistry increasingly relies on continuous digital monitoring rather than one-time patient education to improve daily oral-hygiene habits and prevent oral diseases. Gingivitis is a reversible inflammatory condition that responds rapidly to changes in oral hygiene within 7–28 days, making it a suitable model to evaluate digital adherence support.

Aim: This study assessed procedure frequency, adherence, and clinical changes in adults using the mHealth prototype Nutri-Dent (v0.1.1).

Methodology: Thirty participants aged 25–45 years were allocated to two groups: gingivitis (n=15) and a healthy gingiva group (n=15). Over 28 days, participants used a pre-alpha version of Nutri-Dent that delivered morning and evening reminders and required confirmation of prescribed hygiene steps (toothbrushing, interdental cleaning), enabling real-time monitoring by a dentist. Adherence and procedure completion were quantified using the Digital Hygiene Index (DHI).

Results: Patients with gingivitis demonstrated a greater relative increase in DHI values during the observation period; however, motivation declined over time, with more frequent omission of evening routines compared with morning routines. Interdental brush use was the most frequently omitted step (41%). After 28 days, clinically meaningful improvements were observed without additional therapeutic interventions or dietary modifications: Plaque Index (PI) and Gingival Index (GI) decreased by approximately 50% each, while Bleeding on Probing (BOP) decreased by approximately 19%.

Conclusion: Digital monitoring of oral hygiene through Nutri-Dent showed significant potential to improve hygienic habits and key clinical parameters, supporting the value of continuous mHealth assistance in contemporary gingivitis prevention.

Keywords: digital monitoring, oral hygiene, gingivitis, mHealth, adherence

OBLAST STOMATOLOGIJE: PARODONTOLOGIJA

**UTJECAJ PRAVOVREMENE TERAPIJE
PARODONTNE BOLESTI NA IZBOR PROTETSKE
REHABILITACIJE****Selma Hasanbegović**

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SAŽETAK

Uvod: Parodontna bolest je značajan klinički i javnozdravstveni problem današnjice i jedna od najčešćih hroničnih bolesti savremenog doba. To je hronična inflamatorna bolest potpunog aparata zuba koja dovodi do formiranja parodontnih džepova, gubitka kliničkog pripoja i u konačnici, gubitka zuba ukoliko se ne prepozna i ne liječi na vrijeme.

Materijali i metode: U radu su prikazana dva klinička slučaja parodontne bolesti sa ciljem procjene ishoda različitih terapijskih postupaka. Analiza je obuhvatila dva pacijenta gdje jedan pacijent nije bio podvrgnut terapiji, dok je drugi pacijent bio terapijski tretiran. Odabir pacijenata zasnivao se na kliničkog pregleda i prisustva karakterističnih znakova parodontne bolesti, uključujući gingivalnu inflamaciju, prisustvo parodontnih džepova, gubitak kliničkog pripoja te procjenu pokretljivosti zuba. U obzir su uzeti anamnestički podaci, kao što su navike oralne higijene i prethodne stomatološke terapije. Odabrani slučajevi omogućili su direktnu kliničku evaluaciju utjecaja terapije na daljnji protetski plan i ishod liječenja.

Rezultati: Uočene su značajne razlike u ishodima. Pravovremeno liječen pacijent uspješno je rehabilitiran implantološkom terapijom uz stabilan funkcionalni i estetski rezultat. Neliječen pacijent pretrpio je gubitak zuba, što je zahtijevalo kompleksnu protetsku rehabilitaciju (totalna proteza i kombinovani rad).

Zaključak: Rano dijagnosticiranje i pravovremeno liječenje parodontne bolesti omogućavaju očuvanje zuba i primjenu savremenih terapijskih rješenja, dok odgađanje terapije dovodi do gubitka zuba i složenije rehabilitacije.

Ključne riječi: parodontna bolest, protetska rehabilitacija, gubitak zuba, terapija, oralno zdravlje

FIELD OF DENTISTRY: PERIODONTOLOGY

**THE IMPACT OF TIMELY PERIODONTAL DISEASE
THERAPY ON THE CHOICE OF PROSTHETIC
REHABILITATION****Selma Hasanbegović**

Private dental office "dr. Amra Lutvikadić", Sarajevo

ABSTRACT

Introduction: Periodontal disease is a chronic inflammatory disease of the supporting apparatus of the tooth characterized by progressive destruction of the gingiva, periodontal ligament and alveolar bone. The disease leads to the formation of periodontal pockets, loss of clinical attachment and ultimately, tooth loss if not recognized and treated in a timely manner.

Materials and Methods: Two clinical cases of periodontal disease were analyzed to assess treatment outcomes. One patient remained untreated, while the other received periodontal therapy. Patient selection was based on clinical findings, including gingival inflammation, periodontal pockets, clinical attachment loss, and tooth mobility. Anamnestic data, such as oral hygiene habits and previous dental treatments, were taken into account. Selected cases enabled evaluation of the impact of therapy on prosthetic planning and treatment outcomes.

Results: Significant differences in treatment outcomes were observed. Early periodontal therapy in one patient enabled implant-supported rehabilitation with stable functional and aesthetic results. In contrast, untreated periodontitis in the second patient led to substantial tooth loss, requiring complex prosthetic rehabilitation. These findings highlight the importance of early diagnosis and timely treatment.

Conclusion: Timely periodontal therapy supports tooth preservation and modern treatment options, whereas delayed intervention leads to tooth loss and more complex rehabilitation. Early diagnosis, individualized treatment planning, and regular dental check-ups are essential for long-term oral health.

Keywords: periodontal disease, prosthetic rehabilitation, tooth loss, therapy, oral health

OBLAST STOMATOLOGIJE: PREVENTIVNA STOMATOLOGIJA

BIHEVIORALNI FAKTORI POVEZANI SA KORIŠTENJEM BOČICE/FLAŠICE I NJIHOVA VAŽNOST ZA ORALNO ZDRAVLJE DJECE**Belkisa Hodžić¹, Elmedin Bajrić², Selam Omerkić³, Jasmin Habibović¹, Almir Jagodić¹**¹JZU Dom zdravlja Živinice²Stomatološki fakultet Univerziteta u Sarajevu³Stomatološka ordinacija Dental care Tuzla**SAŽETAK**

Uvod: Karijes u ranom djetinjstvu je često stanje, a hranjenje na bočicu/flašicu zaslađenim napitcima smatra se faktorom rizika za njegov razvoj. Dugotrajna upotreba bočice/flašice, u kombinaciji sa neadekvatnom oralnom higijenom, dodatno povećava rizik od karijesa kod djece.

Cilj istraživanja: Ispitati obrasce hranjenja na bočicu/flašicu, uključujući trajanje, sadržaj i dnevne navike, te njihov utjecaj na oralno zdravlje šestogodišnje djece na području Grada Živinice.

Materijali i metode: Istraživanje je obuhvatilo 307 šestogodišnje djece koja su dolazila na rutinske stomatološke preglede u JZU Dom zdravlja Živinice. Studija je provedena uz odobrenje Etičkog komiteta JZU Dom zdravlja Živinice. Tokom pregleda djece roditelji su davali odgovore na anketni upitnik koji je obuhvatao upotrebu bočice, trajanje, sadržaj i dnevne obrasce korištenja. Podaci su analizirani deskriptivno i prikazani u postocima.

Rezultati: Gotovo 60% djece koristilo je bočicu/flašicu. Korištenje bočice nakon prve godine života uočeno je kod gotovo polovice djece (do 1 godine 13%, 2 godine 19,9%, 3 godine 14,7%, više od 3 godine 12,1%). Sadržaj bočica uključivao je sokove u 12,6% slučajeva i druge zaslađene napitke u 3,1%. Dnevni obrasci korištenja pokazali su da je 14,7% djece stalno koristilo bočicu tokom dana, 9,4% stalno po noći, a 22,8% povremeno tokom dana.

Zaključak: Na temelju dobivenih rezultata istraživanja, hranjenje na bočicu ostaje uobičajena navika među djecom u Živinicama. Dugotrajna upotreba i konzumacija zaslađenih napitaka može povećati rizik od ranog dječijeg karijesa. Rezultati istraživanja naglašavaju potrebu za ciljanom edukacijom roditelja i preventivnim mjerama za zaštitu i poboljšanje oralnog zdravlja.

Ključne riječi: prehrambene navike, šestogodišnjaci, karijes u ranom djetinjstvu

FIELD OF DENTISTRY: PREVENTIVE DENTISTRY

BEHAVIORAL FACTORS ASSOCIATED WITH BOTTLE FEEDING AND THEIR IMPORTANCE FOR CHILDREN'S ORAL HEALTH**Belkisa Hodžić¹, Elmedin Bajrić², Selam Omerkić³, Jasmin Habibović¹, Almir Jagodić¹**¹Public Health Institution Health Center Živinice²Faculty of Dentistry, University of Sarajevo³Dental Practice Dental Care Tuzla**ABSTRACT**

Introduction: Early childhood caries (ECC) is a common condition, and bottle-feeding with sweetened drinks is considered a risk factor for its development. Prolonged bottle use, combined with inadequate oral hygiene, further increases the likelihood of ECC in children.

Aim: To examine bottle-feeding patterns, including duration, contents, and daily habits, and their impact on oral health in six-year-old children in the Živinice area.

Materials and Methods: A cross-sectional study included 307 six-year-old children attending routine dental examinations at the Primary Healthcare Center Živinice. The study was conducted with approval from the Ethics Committee of JZU Primary Healthcare Center Živinice. Parents completed a structured questionnaire covering bottle use, duration, contents, and daily usage patterns. Data were analyzed descriptively and presented in percentages.

Results: Nearly 60% of children had used a bottle. Bottle use after the first year of life was observed in almost half of the children (up to 1 year 13%, 2 years 19.9%, 3 years 14.7%, more than 3 years 12.1%). The contents of the bottles included juices in 12.6% of cases and other sweetened drinks in 3.1%. Daily usage patterns showed that 14.7% of children used the bottle constantly during the day, 9.4% constantly at night, and 22.8% occasionally during the day.

Conclusion: Bottle-feeding remains a common habit among children in Živinice. Prolonged use and consumption of sweetened drinks may increase the risk of ECC. The findings emphasize the need for targeted parental education and preventive measures to protect and improve oral health.

Keywords: feeding habits, six-year-olds, early childhood caries

OBLAST STOMATOLOGIJE: PREVENTIVNA STOMATOLOGIJA

**VAŽNOST PREVENTIVNE STOMATOLOŠKE
PRIPREME KOD PACIJENATA PRIJE TERAPIJE
BIFOSFONATIMA****Marijana Lasić¹, Josip Kapetanović²**¹ Studentica 5. godine, Medicinski fakultet Sveučilišta u Mostaru² Medicinski fakultet Sveučilišta u Mostaru**SAŽETAK**

Uvod: Bifosfonati se široko koriste u liječenju malignih bolesti. Iako učinkoviti, povezani su s razvojem osteonekroze čeljusti uzrokovane lijekovima (MRONJ). Rizik razvoja MRONJ značajno se povećava kod invazivnih stomatoloških zahvata, prisutnosti infekcije i lošeg oralnog zdravlja prije početka terapije.

Prikaz slučaja: Pacijentica s dijagnosticiranim karcinomom dojke bila je na terapiji bifosfonatima. Upućena je od strane onkologa zbog bolova u području čeljusti. Nije provedena adekvatna stomatološka priprema prije početka terapije, što je dovelo do razvoja komplikacija i potrebe za kirurškim zahvatom, kao i prekida onkološke terapije. Kao manje invazivna alternativa klasičnoj ekstrakciji kod rizičnih pacijenata indicirana je krunektomija, s ciljem smanjenja rizika od razvoja ili progresije MRONJ.

Materijali i metode: Kliničkim pregledom utvrđena je prisutnost purulentne eksudacije te izražena mobilnost dotrajalog fiksno protetskog rada (mosta), čime je indicirana klinička sumnja na MRONJ. Terapijski protokol uključivao je primjenu antibiotika prema smjernicama za MRONJ, provođenje krunektomije kao poštudne alternative ekstrakciji te kirurško uklanjanje nekrotičnih sekvastara.

Rezultat: Nakon tri mjeseca postignuto je stabilno kliničko stanje, te je provedena protetska rehabilitacija. Zbog težine nastale komplikacije bio je nužan privremeni prekid onkološke terapije bifosfonatima.

Zaključak: Pravovremena stomatološka priprema pacijenata prije uvođenja bifosfonata ključna je za prevenciju MRONJ. Ovaj slučaj naglašava važnost interdisciplinarnе suradnje između stomatologa i onkologa kako bi se spriječile komplikacije i izbjegao prekid terapije.

Ključne riječi: bifosfonati, preventiva, MRONJ, onkološki pacijenti.

FIELD OF DENTISTRY: PREVENTIVE DENTISTRY

**THE IMPORTANCE OF PREVENTIVE DENTAL
PREPARATION IN PATIENTS BEFORE
BISPHOSPHONATE THERAPY****Marijana Lasić¹, Josip Kapetanović²**¹ 5th-year student, Faculty of Medicine, University of Mostar² Faculty of Medicine, University of Mostar**ABSTRACT**

Introduction: Bisphosphonates are widely used in the treatment of malignant diseases. Although effective, they are associated with the development of medication-related osteonecrosis of the jaw (MRONJ). The risk of developing MRONJ significantly increases with invasive dental procedures, the presence of infection, and poor oral health prior to the initiation of therapy.

Case report: A patient diagnosed with breast cancer was undergoing bisphosphonate therapy. She was referred by an oncologist due to pain in the jaw region. Adequate dental preparation was not performed prior to the initiation of therapy, which led to the development of complications, the need for surgical intervention, and interruption of oncological treatment. As a less invasive alternative to conventional extraction in high-risk patients, coronectomy was indicated in order to reduce the risk of development or progression of MRONJ.

Materials and methods: Clinical examination revealed the presence of purulent exudation and pronounced mobility of a deteriorated fixed prosthetic restoration (bridge), raising clinical suspicion of MRONJ. The therapeutic protocol included the administration of antibiotics according to MRONJ guidelines, performing coronectomy as a conservative alternative to extraction, and surgical removal of necrotic sequestra.

Results: After three months, a stable clinical condition was achieved, followed by prosthetic rehabilitation. Due to the severity of the complication, a temporary interruption of bisphosphonate oncological therapy was necessary.

Conclusion: This case highlights the importance of interdisciplinary collaboration between dentists and oncologists in order to prevent complications and avoid interruption of oncological treatment.

Keywords: bisphosphonates, prevention, MRONJ, oncology patients.

OBLAST STOMATOLOGIJE: STOMATOLOŠKA PROTETIKA

MULTIDISCIPLINARNO RJEŠENJE ANODONCIJE STALNIH LATERALNIH SJEKUTIĆA

Ida Mulić

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SAŽETAK

Uvod: Anodoncija stalnih lateralnih sjekutića česta je razvojna anomalija koja značajno utiče na okluziju, fonaciju i estetiku osmijeha. Najčešće se javlja u gornjoj vilici, uz dijastemu i poremećaj rasporeda zuba, što može izazvati funkcionalne i estetske probleme. Pravovremena dijagnostika i planiranje terapije ključni su za optimalan ishod.

Cilj: Cilj rada je prikazati moguća terapijska rješenja, njihove prednosti i nedostatke, te naglasiti važnost multidisciplinarnog pristupa u dijagnostici i terapiji anodoncije, uključujući ortodontski i protetski plan.

Materijal i metode: Prikazan je klinički slučaj pacijentice s anodoncijom stalnih lateralnih sjekutića i perzistencijom mliječnog desnog lateralnog sjekutića. Nakon detaljne kliničke, funkcionalne i radiološke analize, te konzultacija sa specijalistom ortodoncije, planirana je ortodontska terapija radi otvaranja prostora za lijevi lateralni sjekutić, nakon čega je izvedena protetska rehabilitacija. Analizirani su raspored zuba, okluzija i estetski parametri. Terapijski plan izrađen je u saradnji ortodonta i protetičara, uključujući ortodontsku pripremu i protetsko planiranje.

Rezultat: Primijenjena terapija dovela je do značajnog poboljšanja funkcije i estetike osmijeha. Postignuta je harmonija osmijeha, stabilni okluzalni odnosi i visoko zadovoljstvo pacijentice.

Zaključak: Anodoncija lateralnih sjekutića predstavlja kompleksan klinički izazov koji zahtijeva multidisciplinarni pristup. Integracijom ortodontske terapije i protetske rehabilitacije moguće je postići visoke estetske standarde, funkcionalnu efikasnost i harmonizaciju okluzije.

Ključne riječi: Anodoncija lateralnih sjekutića, hipodoncija, multidisciplinarni pristup, ortodoncija, estetska rehabilitacija

FIELD OF DENTISTRY: DENTAL PROSTHODONTICS

MULTIDISCIPLINARY MANAGEMENT OF CONGENITAL ABSENCE OF PERMANENT LATERAL INCISORS

Ida Mulić

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ABSTRACT

Introduction: Congenital absence of permanent lateral incisors is a common developmental anomaly that significantly affects occlusion, phonation, and smile aesthetics. It most frequently occurs in the maxilla, often accompanied by diastema and abnormal tooth arrangement, leading to functional and esthetic concerns. Timely diagnosis and treatment planning are essential for optimal outcomes.

Objective: The aim of this study is to present possible treatment options, their advantages and limitations, and to emphasize the importance of a multidisciplinary approach in the diagnosis and management of congenital lateral incisor agenesis, including both orthodontic and prosthetic planning.

Materials and Methods: A clinical case of a patient with congenital absence of permanent lateral incisors and persistence of the primary right lateral incisor is presented. Following a detailed clinical, functional, and radiological assessment, and consultation with an orthodontic specialist, orthodontic therapy was planned to create space for the left lateral incisor, followed by prosthetic rehabilitation. The treatment plan was developed in collaboration between the orthodontist and prosthodontist, including orthodontic preparation and prosthetic planning.

Results: The applied treatment resulted in significant improvement in both function and smile aesthetics. Harmonious smile, stable occlusal relationships, and patient satisfaction were achieved.

Conclusion: Congenital absence of lateral incisors presents a complex clinical challenge requiring a multidisciplinary approach. Integration of orthodontic therapy and prosthetic rehabilitation enables the achievement of high esthetic standards, functional efficiency, and occlusal harmony.

Keywords: Congenital lateral incisor agenesis, hypodontia, multidisciplinary approach, orthodontics

OBLAST STOMATOLOGIJE: STOMATOLOŠKA PROTETIKA

PROTETSKA REHABILITACIJA PACIJENATA SA KOMPLEKSNIM OKLUZALNIM POREMEĆAJIMA – PRIKAZ KLINIČKIH SLUČAJEVA**Lejla Hodžić**

Privatna stomatološka ordinacija "dr. Hodžić" Sarajevo

SAŽETAK

Uvod: Kompleksni okluzalni poremećaji, kao što su pseudoprogenija, obrnut zagriz u frontalnoj regiji, prinudna okluzija, atricija zuba te asimetrija i devijacija mandibule, mogu dovesti do značajnih funkcionalnih i estetskih problema. Ova stanja često uzrokuju poremećaje mastikacije, progresivno trošenje zuba, disbalans stomatognatog sistema, kao i razvoj karijesa i parodontoloških oboljenja.

Cilj rada: Cilj ovog rada je prikazati protetske terapijske mogućnosti u rehabilitaciji pacijenata sa kompleksnim okluzalnim poremećajima kroz prikaz kliničkih slučajeva iz svakodnevne prakse.

Materijali i metode: U radu su prikazana tri pacijenta sa različitim kombinacijama okluzalnih anomalija, uključujući pseudoprogeniju, obrnut zagriz u frontalnoj regiji, izraženu atriciju i prinudnu okluziju. Nakon detaljne kliničke i funkcionalne analize, planirana je protetska terapija s ciljem rekonstrukcije okluzije i artikulacije, uspostavljanja stabilnih međuviličnih odnosa te poboljšanja funkcije žvakanja i estetike.

Rezultati: Nakon provedene terapije postignuta je stabilna okluzija i artikulacija, poboljšana funkcija stomatognatog sistema te značajno unaprijeđena estetika osmijeha kod svih prikazanih pacijenata.

Zaključak: Protetska rehabilitacija predstavlja efikasan i pouzdan terapijski pristup u rješavanju kompleksnih okluzalnih poremećaja kod odraslih pacijenata, omogućavajući funkcionalnu stabilnost i estetsku rekonstrukciju.

Ključne riječi: okluzija, pseudoprogenija, atricija, artikulacija, međuvilični odnosi

FIELD OF DENTISTRY: DENTAL PROSTHODONTICS

PROSTHETIC REHABILITATION OF PATIENTS WITH COMPLEX OCCLUSAL DISORDERS: A PRESENTATION OF CLINICAL CASES**Lejla Hodžić**

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ABSTRACT

Introduction: Complex occlusal disorders, such as pseudoprogathism, anterior crossbite, forced occlusion, tooth attrition, as well as mandibular asymmetry and deviation, can lead to significant functional and aesthetic problems. These conditions often result in impaired mastication, progressive tooth wear, imbalance of the stomatognathic system, and the development of caries and periodontal diseases.

Aim: The aim of this study is to present prosthetic treatment possibilities in the rehabilitation of patients with complex occlusal disorders through a series of clinical cases from everyday practice.

Materials and Methods: This paper presents three patients with different combinations of occlusal anomalies, including pseudoprogathism, anterior crossbite, severe attrition, and forced occlusion. Following a detailed clinical and functional analysis, prosthetic therapy was planned with the aim of occlusal reconstruction, establishment of stable intermaxillary relationships, and improvement of masticatory function and aesthetics.

Results: After the completed therapy, stable occlusion and articulation were achieved, along with improved function of the stomatognathic system and significantly enhanced smile aesthetics in all presented patients.

Conclusion: Prosthetic rehabilitation represents an effective and reliable therapeutic approach in the management of complex occlusal disorders in adult patients, enabling functional stability and aesthetic reconstruction.

Keywords: occlusion, pseudoprogathism, attrition, articulation, intermaxillary relationships