

## Sažeci kongresa Hrvatski parodontološki dani 2015.

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**Predsjednik • President:**  
Darije Plančak

**Urednik • Editor:**  
Ivan Puhar

#### ORALNE PREZENTACIJE

##### 1.1. PLIDENTA PARODONT – ISPITIVANJE DJELOTVORNOSTI AKTIVNIH SASTOJAKA

Nives Rinčić<sup>1</sup>, Ana Badovinac<sup>2</sup>, Luka Marković<sup>3</sup>, Andrija Mijić<sup>3</sup>

<sup>1</sup>Stomatološka poliklinika Zagreb

<sup>2</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

<sup>3</sup>Stomatološki fakultet, Sveučilište u Zagrebu

Cilj istraživanja bio je ispitati učinkovitost aktivnih sastojaka Plidenta Parodont paste za zube na upalu gingive i akumulaciju dentalnog plaka u odnosu na kontrolnu (placebo) pastu za zube bez aktivnih sastojaka. Randomizirano, dvostruko slijepo istraživanje provedeno je na 40 ispitanika s gingivitisom podijeljenih u dvije paralelne grupe: ispitnu (n=21) i kontrolnu (n=19). Ispitanici su koristili Plidenta Parodont pastu za zube (ispitna grupa) i kontrolnu (placebo) pastu za zube (kontrolna grupa) tijekom perioda od 28 dana. Indeks krvareće papile (PBI) i aproksimalni plak indeks (API) određivani su 1., 7. i 28. dana korištenja paste. U ispitnoj grupi došlo je do statistički značajnog smanjenja krvarenja gingive tijekom ispitivanog perioda (p=0,002), dok u kontrolnoj grupi nije zabilježeno statistički značajno smanjenje krvarenja (p=0,328). Statistički značajno smanjenje krvarenja u ispitnoj grupi zabilježeno je već 7. dana korištenja paste (p=0,018). Obje grupe pokazale su statistički značajno smanjenje akumulacije plaka na zubnim površinama tijekom ispitivanog perioda (ispitna grupa: p=0,001; kontrolna grupa: p=0,004). Iz rezultata istraživanja može se zaključiti da aktivni sastojci Plidenta Parodont paste za zube brzo i učinkovito smanjuju krvarenje gingive.

##### 2.1. PRIMJENA AUTOLOGNOG KONDICIONIRANOG SERUMA U NEKIRURŠKOJ I KIRURŠKOJ PARODONTNOJ TERAPIJI

Ivan Puhar<sup>1</sup>, Marin Piskač<sup>2</sup>, Darije Plančak<sup>1</sup>

<sup>1</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

<sup>2</sup>Dom zdravlja Krapinsko-zagorske županije, Krapina

Parodontni patogeni i destruktivni odgovori domaćina uključeni su u inicijaciju i progresiju parodontitisa kod pojedinaca s povećanim rizikom. Stoga dugoročno zbrinjavanje ove bolesti može zahtijevati strategije liječenja koje integriraju sve navedene komponente. Autologni kondicionirani serum (ACS) je biološka metoda koja se temelji na izlaganju leukocita površini sa staklenim sferama, a dovodi do akumulacije protuupalnih citokina, uključujući interleukin-1 receptor antagonist, kao i nekoliko čimbenika rasta. Osnovni razlog za primjenu ACS-a jest lokalno aplicirati pacijentove vlastite protuupalne citokine na tretirano mjesto, te posebice IL-1 receptore zasiti u što većoj količini s IL-1ra. Uzimajući u obzir sastav ACS-a i patogenezu parodontitisa, za pretpostaviti je da bi lokalna primjena ACS-a mogla doprinijeti boljim rezultatima nekirurške i kirurške parodontne terapije. Ova prezentacija razmatra moguće načine primjene ACS-a tijekom parodontne terapije. Preliminarni klinički rezultati ukazuju da bi ACS mogao biti koristan dodatak nekirurškoj terapiji uznapredovalih generaliziranih parodontitisa. Postoji potreba za budućim istraživanjima ovoga područja kako bi se olakšalo pronalaženje individualiziranog liječenja parodontne bolesti usmjerenog na upalni odgovor domaćina.

#### ORAL PRESENTATIONS

##### 1.2. PLIDENTA PARODONT – TESTING THE EFFICACY OF THE ACTIVE INGREDIENTS

Nives Rinčić<sup>1</sup>, Ana Badovinac<sup>2</sup>, Luka Marković<sup>3</sup>, Andrija Mijić<sup>3</sup>

<sup>1</sup>Dental Polyclinic Zagreb

<sup>2</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

<sup>3</sup>School of Dental Medicine, University of Zagreb

The aim of this study was to determine the gingivitis and plaque reducing effect of the active ingredients of Plidenta Parodont tooth paste and compare it with control (placebo) tooth paste. This randomized, double-blind study was conducted on 40 participants with gingivitis, who were divided into two parallel groups: test group (n=21) and control group (n=19). The participants used either Plidenta Parodont tooth paste (test group) or control (placebo) toothpaste (control group) over the time period of 28 days. Papilla bleeding index (PBI) and approximal plaque index (API) were assessed at baseline, after 7 and 28 days. After 28 days of product use, the test group showed a statistically significant lower PBI values compared to the baseline (p=0,002), while in the control group there was no statistically significant difference in PBI values after 28 days compared to the baseline (p=0,328). Statistically significant lower PBI values in the test group were recorded already after 7 days of product use (p=0,018). Both groups had less plaque accumulation after 28 days of product use compared to the baseline (test group: p=0,001; control group: p=0,004). From the results of this study it can be concluded that active ingredients of Plidenta Parodont tooth paste effectively and quickly reduce gingival bleeding.

##### 2.2. APPLICATION OF AUTOLOGOUS CONDITIONED SERUM IN NON-SURGICAL AND SURGICAL PERIODONTAL THERAPY

Ivan Puhar<sup>1</sup>, Marin Piskač<sup>2</sup>, Darije Plančak<sup>1</sup>

<sup>1</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

<sup>2</sup>Public Health Center of Krapina-Zagorje County, Krapina

Periodontal pathogens and destructive host responses are involved in the initiation and progression of periodontitis in the individual at risk for disease. Therefore, the successful long-term management of this disease may require a treatment strategy that integrates therapies that address all of these components. Autologous conditioned serum (ACS) is a biological method based on exposure of blood leukocytes to glass spheres surfaces that elicits an accumulation of anti-inflammatory cytokines, including interleukin-1 receptor antagonist, and several growth factors. The main rationale for the use of ACS is to locally deliver patient's own anti-inflammatory cytokines into treated sites, and especially to saturate IL-1 receptors with IL-1ra as much as possible. Considering the composition of ACS and pathogenesis of periodontitis it is hypothesized that local application of ACS could contribute to better outcomes of non-surgical and surgical periodontal therapy. This presentation discusses the potential ways of ACS's delivery in a course of periodontal therapy. Preliminary clinical results indicate that ACS could be a beneficial adjunct in the non-surgical treatment of severe generalized periodontitis. Further research in this field would also facilitate fabrication of individualized treatment for periodontal disease targeting inflammatory host response.

## POSTER IZLAGANJA

### 1.1. CIJELJENJE SLOBODNOG GINGIVNOG TRANSPLANTATA KOD PACIJENTA S DUGOGODIŠNJIM DIJABETESOM TIPA I

Ivan Dežulović<sup>1</sup>, Andrej Aurer<sup>2</sup>

<sup>1</sup>Privatna ordinacija dentalne medicine dr. Nino Dežulović, Zagreb

<sup>2</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

Diabetes mellitus je sistemski bolest koja utječe na sistemsko zdravlje i izaziva kompromitiranu mikrocirkulaciju te oslabljen upalno-imuni odgovor i cijeljenje. Nekonrolirani dijabetes otežava cijeljenje kirurških rana, koje se češće inficiraju i često je povezan s abnormalnom proliferacijom fibroblasta, smanjenom sintezom kolagena te usporenom epitelizacijom rane. Kod kontroliranih pacijenata s dijabetesom, ove značajke su manje izražene. Uprkos dobroj kontroli dijabetesa, rizik od lošijeg cijeljenja rana povećan je kod dugogodišnjih bolesnika. Pacijent je došao na naš Zavod zbog bojazni od gubitka donjih središnjih inciziva. Iako već dugo boluje od dijabetesa tipa I, nije razvio parodontitis. Kliničkim pregledom utvrđeno je prisustvo neupalnih recesija na navedenim zubima te debeli biotip gingive. Donji incizivi bili su pozitivno rotirani uz prisutnost diasteme, uski pojas pričvrstne gingive te visoko inserirajući frenulum. Na tom je mjestu bila otežana oralna higijena. Plan terapije uključivao je davanje uputa u oralnu higijenu te uklanjanje supra- i subgingivnih naslaga u nekoliko posjeta. Kada je postignuta zadovoljavajuća oralna higijena, a upala stavljena pod kontrolu, kirurški je uzet slobodni gingivni transplantat s nepca te presađen na pripremljeno ležište u području frenuluma. Kirurški zahvat nije pokriven antibiotikom. Cijeljenje rane bilo je uredno. Prognoza potpunog prekrivanja recesija u ovom slučaju nije povoljna, prvenstveno zbog postojanja diasteme i, sekundarno, zbog rotiranosti obaju zuba. Ovaj slučaj pokazuje kako u slučaju dobro kontroliranog dugogodišnjeg dijabetesa primjena antibiotika nije potrebna prilikom mukogingivnih kirurških zahvata.

### 2.1. DJELOVANJE FULLERENA I FULLERENOLA NA *FUSOBACTERIUM NUCLEATUM*

Kristina Halbauer<sup>1</sup>, Maja Bogdan<sup>2</sup>, Zinka Bošnjak<sup>2</sup>, Bojan Šarkanj<sup>3</sup>, Tomislav Klavec<sup>3</sup>, Dinko Leović<sup>4</sup>

<sup>1</sup>Privatna ordinacija dentalne medicine, Osijek

<sup>2</sup>Zavod za javno zdravstvo Osječko-baranjske županije, Osijek

<sup>3</sup>Prehrambeno-tehnološki fakultet, Katedra za biokemiju i toksikologiju, Osijek

<sup>4</sup>Odjel za maksilofacijalnu kirurgiju, Klinički bolnički centar Osijek, Medicinski fakultet Osijek

Svrha istraživanja je ispitati antimikrobni učinak ugljikovih nanočestica fullerena i fullerena na bakterijski soj *Fusobacterium nucleatum* koji je glavna karika u lancu nastanka dentalnog plaka. U parodontnoj terapiji se uz mehaničko čišćenje i kemijsku dezinfekciju često upotrebljavaju antibiotici. Nekritična primjena antibiotika uzrokuje bakterijsku otpornost, stoga se danas ispituju antimikrobni učinci nanomaterijala. Fullereni C<sub>60</sub> su šuplje sferične nanočestice građene od 60 atoma ugljika. Fullerenoli C<sub>60</sub>(OH)<sub>24</sub> nastaju kemijskom modifikacijom molekula fullerena C<sub>60</sub> dodavanjem hidroksilnih grupa. Osim antioksidantnog, antikancerogenog, radioprotektivnog i imunomodulatornog djelovanja, oni eliminiraju ali i generiraju reaktivne kisikove spojeve (singletni kisik i superoksid anion) što im omogućava antibakterijsko djelovanje. Pet sterilnih epruveta pojedinačno je napunjeno s 0,25 ml vodene otopine fullerena, fullerena, sterilne vode, Luria-Bertani bujona ili 0,2%-tne otopine klorheksidin-glukonata. Nakon inokulacije navedenih otopina poraslim sojem *Fusobacterium nucleatum subsp. nucleatum* (ATCC 25586) i 24-satne inkubacije u anaerobnim uvjetima na 37 °C, 0,1 ml svake suspenzije je inokulirano na dva kruta hranilišta. Postupak je izveden u triplicatu. Nakon inkubacije u trajanju od 72h na 37°C u anaerobnim uvjetima bilježen je bakterijski porast. Usporedna analiza pet ispitivanih otopina pokazala je inhibicijski učinak vodenih otopina fullerena i fullerena na rast *Fusobacterium nucleatum*. Daljnje istraživanje antimikrobnog učinka fullerena i fullerena u budućnosti bi moglo naći primjenu u terapiji parodontitisa.

## POSTER PRESENTATIONS

### 1.2. HEALING OF THE FREE GINGIVAL GRAFT IN A PATIENT WITH LONG TERM DIABETES TYPE I

Ivan Dežulović<sup>1</sup>, Andrej Aurer<sup>2</sup>

<sup>1</sup>Private dental practice dr. Nino Dežulović, Zagreb

<sup>2</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

Diabetes mellitus is a systemic disease that affects systemic health and compromises microcirculation. It also impairs immune-inflammatory response and healing. Uncontrolled diabetes complicates healing of surgical wounds, which often get infected, and is often associated with abnormal proliferation of fibroblasts and reduced synthesis of collagen. It makes an epithelialization of the wound slower. In controlled diabetic patients, these features are less pronounced. Despite good control of diabetes, the risk of poor wound healing is increased in long-standing patients. The patient came to our Department due to his fear of losing the lower central incisors. Although he has been suffering from type I diabetes for many years, he did not develop periodontitis. Clinical examination showed the presence of non-inflammatory recessions in these teeth and thick gingival biotype. The lower incisors were positively rotated along with the presence of diastema, a narrow band of attached gingiva and presence of high insertion of frenulum. At this site the oral hygiene was difficult to manage. The treatment plan included instructions in oral hygiene, removal of supra- and subgingival plaque over several sessions. When satisfactory oral hygiene was achieved and inflammation was brought under control, free gingival graft was surgically taken from the palate and transplanted on the prepared bed in frenulum area. Antibiotics were not prescribed after the surgery. Wound healing was regular. Prognosis of complete recession coverage in this case is not favorable, primarily because of the existence of diastema and secondary because of teeth rotation.

This case shows that treating a patient with well-controlled long-standing diabetes does not require antibiotics when performing mucogingival surgeries.

### 2.2. EFFECT OF FULLERENE AND FULLERENOL ON *FUSOBACTERIUM NUCLEATUM*

Kristina Halbauer<sup>1</sup>, Maja Bogdan<sup>2</sup>, Zinka Bošnjak<sup>2</sup>, Bojan Šarkanj<sup>3</sup>, Tomislav Klavec<sup>3</sup>, Dinko Leović<sup>4</sup>

<sup>1</sup>Private dental practice, Osijek

<sup>2</sup>Institute of Public Health for Osijek-Baranya County, Osijek

<sup>3</sup>Subdepartment of Biochemistry and Toxicology, Faculty of Food and Technology Osijek,

<sup>4</sup>Department of Maxillofacial Surgery, University Hospital Center Osijek, Faculty of Medicine Osijek

The aim of the study was to examine the antibacterial effect of the carbon nanoparticles fullerenes and fullereneols on *Fusobacterium nucleatum* bacterial strain which is the main link in the chain of dental plaque formation. In periodontal therapy antibiotics are frequently used additionally to the mechanical cleaning and chemical disinfection. The uncritical use of antibiotics induces bacterial resistance, thus nowadays antibacterial effects of nanomaterials are being tested. Fullerenes are hollow spherical C<sub>60</sub> nanoparticles composed of 60 carbon atoms. Fullereneols C<sub>60</sub>(OH)<sub>24</sub> are formed by chemical modification of fullerene C<sub>60</sub> molecules by adding hydroxyl groups. In addition to their antioxidant, anticancer, radioprotective and immunomodulatory effect, they eliminate but also generate active oxygen species (singlet oxygen and superoxide anion) which enables their antibacterial activity. A five sterile glass tubes were separately loaded with 0,25ml of fullerene water solution, fullereneol water solution, sterile water, Luria-Bertani broth and 0,2% solution of chlorhexidine-digluconate. After inoculation of each solution with pure culture of the *Fusobacterium nucleatum subsp. nucleatum* (ATCC 25586) and 24h incubation in anaerobic conditions at 37°C, 0,1ml of each suspension was inoculated on two different culture media. The procedure was conducted in triplicate. Plates were incubated in anaerobic conditions at 37°C for 72h and the bacterial growth was recorded. Comparative analysis of five tested solutions showed inhibitory effect of fullerenes and fullereneols water solutions on *Fusobacterium nucleatum* growth. Further investigation of the fullerene and fullereneol antimicrobial effect could find application in periodontal therapy in the future.

### 3.1. PROŠIRENJE POJASA PRIČVRSNJE GINGIVE UZ IMPLANTATE SLOBODNIM GINGIVNIM TRANSPLANTATOM – PRIKAZ SLUČAJA

Ivana Mišković<sup>1</sup>, Darko Božić<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>Katedra za oralnu medicinu i parodontologiju, Medicinski fakultet u Rijeci, Sveučilište u Rijeci

<sup>2</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

UVOD Zahvatom proširenja pojasa pričvrstne gingive pomična se sluznica pozicionira apikalnije dok se na njen prijašnji koronalniji položaj postavlja epitelizirani transplantat nepčane sluznice. Indikacije za ovaj zahvat su recesije u područjima bez estetske važnosti s nedostatkom pričvrstne gingive. Zahvatom se zaustavlja daljnje napredovanje recesija i stabilizira gingivni rub. Isti je zahvat moguće izvoditi i uz implantate gdje nedostatak pričvrstne gingive otežava održavanje oralne higijene i potencira lokalnu upalu. PRIKAZ SLUČAJA Pacijentica, 34 godine, žali se na bolnost i gnojenje u području implantata u regiji 46 i 47. Izmjereni PPD je  $\geq 5$  mm na svih 8 mjerenih mjesta, uz pozitivan BoP, plak indeks i supuraciju iz džepova na implantatu 46, te GR od 2 mm vestibularno na oba implantata. Analiza retroalveolarnog dentalnog snimka kao i izmjerenih indeksa upućuje na dijagnozu periimplantitisa u regiji 46 i 47. Primjenjen je CIST protokol A+B+C – mehanička i kemijska kontrola plaka, te sustavna antibiotska terapija (van Winkelhoffov koktel). Na kontrolnom pregledu nakon dva mjeseca, PPD je  $\leq 4$  mm, uz negativan BoP, plak indeks i supuraciju, dok GR sada iznosi 4 mm uz pozitivan test navlačenja. Proviđi se operativni zahvat proširenja pojasa pričvrstne gingive slobodnim gingivnim transplantatom s nepca. Dva mjeseca nakon zahvata širina pojasa pričvrstne gingive iznosi 3 mm, dok je retrakcija 2 mm uz negativan test navlačenja. ZAKLJUČAK Zahvat proširenja pojasa pričvrstne gingive moguće je izvesti i na implantatima primjenjujući jednake tehnike kao i kod prirodnih zuba.

### 4.1. CANCRUM ORIS KAO POSLJEDICA NAČINA ŽIVOTA – PRIKAZ SLUČAJA

Marija Nosić<sup>1</sup>, Tajana Novak<sup>2</sup>, Darko Kero<sup>1</sup>, Livia Cigić<sup>1</sup>, Danijela Kalibović Govorko<sup>1</sup>, Andrija Bošnjak<sup>1,2</sup>

<sup>1</sup>Zavod za oralnu medicinu i parodontologiju, Studij dentalne medicine, Sveučilište u Splitu

<sup>2</sup>Privatna ordinacija, Zagreb

Nekrotizirajuća parodontna bolest najteži je upalni parodontni poremećaj uzrokovan bakterijama plaka. Unatoč znatnom napretku u razvoju sredstava za oralnu higijenu, njihovoj dostupnosti i općenito svijesti o važnosti oralnog zdravlja i zdravlja općenito, pojavnost nekrotizirajuće parodontne bolesti i danas nije neobična. Loša oralna higijena, stres, pušenje, malnutricija i nezdrave životne navike mogu uzrokovati danas rijetko viđenu i dramatičnu sliku nekrotizirajućeg stomatitisa (cancrum oris) na obraznoj sluznici. Ovdje prikazujemo slučaj 19-godišnje pacijentice koja dolazi zbog lezije u usnoj šupljini ne starije od 10 dana. Kliničkim pregledom ustanovljen je nekrotizirajući gingivitis te lezija na obraznoj sluznici promjera 2.5-3 cm. Anamnestički podaci isključuju sistemske i autoimune bolesti te opće simptome, a upućuju na nedavni psihološki i fizički stres, pothranjenost (pacijentica je smršavila 27 kilograma u tri mjeseca) te pušenje više od jedne kutije cigareta dnevno. Pacijentici je pripisan van Winkelhoffov koktel antibiotika, uzet uzorak tkiva za analizu te je upućena napraviti kompletnu krvnu sliku (KKS) te na testiranje na spolno prenosive bolesti. Također, date su iscrpne upute u oralnu higijenu, 0.2% otopina klorheksidina te je započeta inicijalna parodontna terapija. Po završetku inicijalne terapije prva kontrola je učinjena nakon 3 dana, zatim nakon 14 i 25 dana. KKS bila je uredna, a testovi na HIV, hepatitis B i C su negativni. Po završetku terapije lezija na obraznoj sluznici je potpuno epitelizirala s minimalno ožiljkastog tkiva.

### 5.1. PARODONTOLOŠKA TERAPIJA PACIJENTICE NAKON TRAUME GORNJEG LIJEVOG SREDIŠNJEG INCIZIVA - PRIKAZ SLUČAJA

Josip Prpić<sup>1</sup>, Lidija Prpić<sup>1</sup>, Saša Pavlov<sup>2</sup>, Darije Plančak<sup>3</sup>

<sup>1</sup>Ordinacije dentalne medicine Josip Prpić, dr.med.dent. i Lidija Prpić, dr.med.dent.

<sup>2</sup>Privatna praksa zubotehničkog laboratorija Saša Pavlov

<sup>3</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

UVOD Pacijentica se javlja u ordinaciju zbog bolova u području gornjeg lijevog središnjeg inciziva. U anamnezi navodi traumu gornjih zubi tijekom nošenja ortodontskog aparata. Anamnezom, parodontološkim pregledom i analizom ortopantomograma postavljena je dijagnoza frakture korijena zuba 21 i kroničnog generaliziranog parodontitisa. PRIKAZ SLUČAJA Anamnezom je utvrđena fraktura gornjeg lijevog središnjeg inciziva i kronični generalizirani parodontitis. Obiteljska anamneza na parodontitis je negativna i ne navodi druge tegobe. Dogovorena je inicijalna parodontna terapija, vađenje zuba 21, augmentacija alveole ksenogenim materijalom (Cerabone®), postavljanje kolagene membrane (Jason fleece®) i izrada privremenog mosta uz naknadnu korekciju mekih tkiva vezivnim tran-

### 3.2. INCREASING THE WIDTH OF KERATINIZED GINGIVA ON IMPLANTS USING A FREE GINGIVAL GRAFT - CASE REPORT

Ivana Mišković<sup>1</sup>, Darko Božić<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>Department for Oral Medicine and Periodontology, Medical School, University of Rijeka

<sup>2</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

INTRODUCTION Surgical techniques used for increasing the width of keratinized gingiva position mucogingival line more apically, while a free gingival graft harvested from the palate is placed on its previous coronal position. Indications are gingival recessions in areas without esthetic importance with lack of keratinized gingiva. This stops the progress of recession and stabilizes gingival margin. It may also be performed on implants where deficiency of keratinized gingiva complicates oral hygiene maintenance and facilitates local inflammation. CASE REPORT Female patient, 34 years, complains of pain and suppuration in the area where two implants, region 46 and 47, were placed. PPD is  $\geq 5$  mm for all 8 measuring points, with positive BoP, plaque index and suppuration adjacent to implant 46, and 2 mm vestibular GR on both implants. Dental X-ray and indices suggest periimplantitis. CIST protocol A+B+C was performed - mechanical and chemical debridement, and systemic antibiotic therapy (van Winkelhoff's cocktail). After two months, PPD was  $\leq 4$  mm on all points, with negative BoP, plaque index and suppuration, while GR was 4 mm with a positive pulling test. Surgical technique for increasing the width of keratinized gingiva using free gingival graft was performed. Two months after, width of keratinized gingiva was 3 mm, and retraction was 2 mm with negative pulling test. CONCLUSION Surgical techniques for increasing the width of keratinized gingiva may be performed on implants using the same techniques as on natural teeth.

### 4.2. CANCRUM ORIS AS A RESULT OF LIFESTYLE - CASE REPORT

Marija Nosić<sup>1</sup>, Tajana Novak<sup>2</sup>, Darko Kero<sup>1</sup>, Livia Cigić<sup>1</sup>, Danijela Kalibović Govorko<sup>1</sup>, Andrija Bošnjak<sup>1,2</sup>

<sup>1</sup>Department for oral medicine and periodontology, Study of Dental Medicine, School of Medicine, University of Split

<sup>2</sup>Private dental office, Zagreb

Necrotizing periodontal disease is the most severe inflammatory periodontal disorder caused by plaque bacteria. Despite considerable progress in the development of means for oral hygiene, their accessibility and awareness of the importance of oral health and health in general incidence of necrotizing periodontal disease today is not unusual. Poor oral hygiene, stress, smoking, malnutrition and unhealthy lifestyle habits can cause now rarely seen and dramatic picture of necrotizing stomatitis (cancrum oris) on the buccal mucosa. Here we present a case of 19-year-old patient who is arriving because of lesions in the oral cavity that are not older than 10 days. Clinical examination showed necrotizing gingivitis and lesions on the buccal mucosa 2.5-3 cm in diameter. The medical history exclude systemic and autoimmune diseases, and general symptoms, and point to recent psychological and physical stress, malnutrition (patient lost 27 kilograms in three months), and smoking more than one pack of cigarettes a day. The patient was prescribed van Winkelhoff cocktail of antibiotics, sampled tissue for analysis and was addressed to complete blood count (CBC), and testing for sexually transmitted diseases. Also detailed instructions in oral hygiene were given, including 0.2% chlorhexidine solution and initial periodontal therapy has begun. Upon completion of the initial treatment the first control was performed after 3 days, then after 14 and 25 days when CBC was clean and the tests for HIV, HepB and HepC were negative. After the treatment of lesions buccal mucosa is completely epithelialized with minimal scar tissue.

### 5.2. PERIODONTAL THERAPY AFTER TRAUMA OF THE UPPER LEFT CENTRAL INCISOR - A CASE REPORT

Josip Prpić<sup>1</sup>, Lidija Prpić<sup>1</sup>, Saša Pavlov<sup>2</sup>, Darije Plančak<sup>3</sup>

<sup>1</sup>Dental practice Josip Prpić, DDS. and Lidija Prpić, DDS.

<sup>2</sup>Private practice of dental laboratory Saša Pavlov

<sup>3</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

INTRODUCTION The patient arrives in dental practice because of pain in the upper left central incisor. The patient noted the trauma of the upper teeth while wearing orthodontic appliances. CASE After taking medical history, periodontal examination and analysis of panoramic radiographs, diagnosis of tooth 21 root fracture and chronic generalized periodontitis was established. There was no family history of the periodontitis. We agreed on the initial periodontal therapy, tooth extraction 21, augmentation of alveoli with xenogenous material (Cerabone®), setting collagen membrane (Jason fleece®) and making a temporary bridge with subsequent correction of soft tissue connective graft from the palate. The possible need for the lengthening of the clinical crown of the sur-

splantatom s nepca. U obzir je uzeta i eventualna potreba za produljenjem kliničke krune okolnih zubi. U prvoj posjeti je napravljen potpuni parodontološki pregled i učinjena je inicijalna terapija. Nakon perioda cijeljenja učinjeno je vađenje zuba i augmentacija alveole te je postavljen privremeni akrilni most. Nakon tri mjeseca učinjeno je produljenje kliničke krune zuba 11, 12, 13 i augmentacija vestibularnog dijela sa slobodnim vezivnim transplantatom uzetim s nepca. Nakon šest mjeseci pristupilo se izradi definitivnog protetskog rada. Odlučeno je da se napravi most od zuba 17 do zuba 24 zbog gubitka zuba 16 i neestetskog izgleda ostalih zubi. Kao materijal izabrana je metalokeramika. Nakon završenog rada vidi se poboljšana crveno-bijela estetika i zadovoljavajući izlazni profil na mjestu zuba 21. ZAKLJUČAK Slučaj prikazuje kako se dobrim planiranjem, primjenom najnovijih spoznaja u parodontologiji i s motiviranim pacijentom mogu protetski sanirati pacijenti s kroničnim parodontitisom koji imaju visoka estetska očekivanja.

### 6.1. USPJEH INICIJALNE PARODONTNE TERAPIJE AGRESIVNOG PARODONTITISA S POMIČANJEM ZUBA 11 ORTODONTSKIM GUMICAMA: PRIKAZ SLUČAJA

Diana Sabolović<sup>1</sup>, Ana Badovinac<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>Ordinacija dentalne medicine Sabolović, Đurđevac

<sup>2</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

UVOD Pacijent D.S. 31 god. upućen od doktora dentalne medicine na Zavod za parodontologiju zbog nepravilnog položaja i mobilnosti gornjeg desnog središnjeg inciziva, pojave dijestema u frontalnom području te učestalog krvarenja gingive. Pacijent je sistemski zdrav i pušač. Cilj slučaja bio je stabilizacija gornje fronte uz kontrolu infekcije. PRIKAZ SLUČAJA Na temelju anamneze, detaljnog parodontološkog pregleda i analize ortopantomografske snimke, postavljena je dijagnoza lokaliziranog agresivnog uznapredovalog parodontitisa. Provedena je inicijalna parodontna terapija uz sistemsku antibiotsku terapiju van Winkelhoffovim kotelom. Na reevaluaciji, nakon osam tjedana, postavljene su ortodontske gumice u cilju rotacije gornjeg središnjeg inciziva u njegov približno prvobitni položaj u zubnom luku. Gumice su fiksirane za susjedne zube kompozitnim materijalom, u cilju osiguravanja stabilnijeg i čvršćeg sidrišta. Pacijent dolazi na kontrolne preglede svaka dva dana, kako bi se kontroliralo aktivno pomičanje zuba 11. Nakon vraćanja zuba u približno prvobitni položaj u zubnom luku, isti je fiksiran za susjedne zube žičano-kompozitnim splintom. DISKUSIJA Kod patološke migracije i umjereno nepravilnog položaja zuba sa stupnjem pomičnosti dva prema Milleru pacijentata s agresivnim parodontitisom, moguće je pomoću blagih sila koje proizvode ortodontske gumice vratiti zub u prvobitni položaj u zubnom luku uz njegovu fiksaciju u tom položaju. Inicijalnom parodontnom terapijom, uz dobru suradnju pacijenta, moguće je osigurati uspjeh u liječenju uznapredovalih oblika agresivnog parodontitisa.

### 7.1. MULTIDISCIPLINARNI PRISTUP KOD PARODONTOLOŠKI KOMPROMITIRANOG PACIJENTA

Lana Skorić<sup>1</sup>, Ivana Čvrlik Tomić<sup>1</sup>, Marko Krmpotić<sup>1</sup>, Domagoj Vražić<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>Poliklinika IMED, Zagreb

<sup>2</sup>Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu

UVOD Uznapredovali stadij kroničnog parodontitisa podrazumijeva klinički gubitak pričvrstka  $\geq 5$  mm. U takvim slučajevima teško je postići dobru prognozu pojedinih zuba koji bi bili nosači fiksno-protetskog rada. PRIKAZ SLUČAJA Pacijent (47 g.) dolazi zbog nezadovoljstva izgledom frontalnih zuba gornje i donje čeljusti. Detaljnom anamnezom, parodontološkim pregledom te analizom ortopantomograma postavlja se dijagnoza uznapredovalog generaliziranog kroničnog parodontitisa. Prije nego što je provedena je inicijalna parodontološka terapija ekstrahirani su sljedeći zubi: 18, 16, 26, 36, 46 i 38. Nakon reevaluacije pristupa se implantaciji 2 implantata u području 46 i 36. Naknadno su ekstrahirani 41, 31 i 11. Pacijent je opskrbljen privremenim fiksno-protetskim nadomjestkom u razdoblju od 6 mjeseci. Nakon toga se pristupilo definitivnom protetskom zbrinjavanju čime je postignuta zadovoljavajuća funkcija i estetika usprkos inicijalno uznapredovalom stadiju parodontitisa. ZAKLJUČAK Kod uznapredovalog generaliziranog kroničnog parodontitisa, uz dobru suradnju pacijenta moguće je ostvariti zadovoljavajuću stabilnost parodontološki kompromitiranih nosača za kompleksni protetski nadomjestak.

rounding teeth was also taken into consideration. In the first visit, a complete periodontal examination and initial periodontal therapy were undertaken. After a period of healing tooth extraction was done and augmentation of the alveoli and temporary acrylic bridge was set. After three months the lengthening of clinical crowns 11, 12, 13 and augmentation of the vestibular portion with a free connective graft taken from the palate was done. After six months definitive prosthetic work was done and a bridge from tooth 17 to 24 formed, because of the loss of tooth 16 and non-aesthetic appearance of other teeth. Metal-ceramic was used. After completing the work, an improved red and white aesthetics can be seen and satisfactory emergence profile on the site of tooth 21. CONCLUSION This case shows how planning, the latest developments in periodontology and motivated patient can prosthetically rehabilitate patients with chronic periodontitis who have high aesthetic expectations.

### 6.2. PERIODONTAL THERAPY OF AGGRESSIVE PERIODONTITIS WITH A SHIFT OF TOOTH 11 WITH ELASTIC BANDS: CASE REPORT

Diana Sabolović<sup>1</sup>, Ana Badovinac<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>Dental office Sabolović, Đurđevac

<sup>2</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

INTRODUCTION Patient D.S. (31y) was referred to the Department of Periodontology due to irregular position and hypermobility of the upper right central incisor, diastema appearance in the frontal area and bleeding gums. Patient was systemically healthy and a smoker. The aim of the case was to control the infection and stabilize upper frontal teeth. CASE REPORT Anamnesis, periodontal examination and analysis of orthopantomogram indicated localized severe aggressive periodontitis. The patient received initial periodontal therapy with the addition of systemic antibiotic therapy. Eight weeks after the initial periodontal therapy, in the process of reevaluation, elastic bands were placed due to rotation of upper right central incisor into its approximate right position in the dental arch. Elastic bands were fixed up with composite material to the adjacent teeth with the aim of better anchorage. The patient was coming to the Department every two days because of better control of the tooth shift. After the tooth was returned to approximate original position, it was fixed with wire composite splint to the adjacent teeth. DISCUSSION When a single tooth is slightly shifted from the right position and has a great tooth mobility we can return it to the right position in the dental arch with the light forces of elastic bands. It is possible to have a success in aggressive periodontal disease if there is a good contact with a patient and if initial therapy was carried out.

### 7.2. MULTIDISCIPLINARY APPROACH TO THE PATIENT WITH SEVERE CHRONIC PARODONTITIS

Lana Skorić<sup>1</sup>, Ivana Čvrlik Tomić<sup>1</sup>, Marko Krmpotić<sup>1</sup>, Domagoj Vražić<sup>2</sup>, Darije Plančak<sup>2</sup>

<sup>1</sup>IMED polyclinic, Zagreb

<sup>2</sup>Department of Periodontology, School of Dental Medicine, University of Zagreb

INTRODUCTION Advanced stage of chronic parodontitis implies clinical attachment loss so that the periodontal pocket is 5mm or greater. In those cases it is complicated to establish a good prognosis with regard to which teeth might serve as carriers of fixed dental prostheses. CASE REPORT A patient (47 y) visits the dentist due to his dissatisfaction regarding the appearance of his frontal teeth in both upper and lower jaw. Using the detailed anamnesis, medical screening and analysis of the orthopantomogram, the doctor diagnoses advanced generalized chronic parodontitis. Before performing a nonsurgical periodontal therapy, the following teeth were extracted: 18, 16, 26, 36, 46 and 38. After the reevaluation, two implants were placed at the area 46 and 36. Subsequently, the teeth 41, 31 and 11 were also extracted. Provisional fixed dental prostheses were fabricated for the patient, for the period of six months, after which the patient was provided with a more definitive prosthetic solution. Dental functionality and accomplished esthetics were more than satisfying, despite the initially advanced stage of parodontitis. CONCLUSION If a patient suffering from advanced generalized chronic parodontitis is cooperative, it is possible to accomplish satisfying stability of abutment teeth which were initially questionable for complex prosthodontic appliance.

### 8.1. NEUSPJEH REGENERATIVNE KIRURŠKE TERAPIJE U POSTORTODONTSKOG PACIJENTA S NELIJEČENIM PARODONTITISOM: PRIKAZ SLUČAJA

Josipa Todorčić<sup>1</sup>, Ana Družijanić<sup>2</sup>, Andrej Aurer<sup>3</sup>

<sup>1</sup>*Premium dent d.o.o., Zagreb*

<sup>2</sup>*Stomatološka poliklinika Split*

<sup>3</sup>*Zavod za parodontologiju, Stomatološki fakultet, Sveučilište u Zagrebu*

UVOD Pacijentica se javlja na naš Zavod zbog krvarenja i povlačenja zubnog mesa. Navodi ortodontsku terapiju u mladosti. Prije desetak godina primjećuje pojavu dijesteme između gornjih jedinica na koju njen stomatolog ne obraća pažnju. Na ortopantomogramu se primjećuje horizontalni gubitak kosti te se 2007. godine provodi kirurška ugradnja ksenogenog koštanog usadka u području gornjih inciziva te u donjoj čeljusti lateralno, a nije mu prethodila inicijalna parodontna terapija. Dvije godine kasnije zbog pomičnosti zubi izrađuju se cirkonske imobilizacijske šine za donje lateralne zube. Pacijentica navodi pozitivnu obiteljsku anamnezu. PRIKAZ SLUČAJA Detaljnom anamnezom postavljena je dijagnoza generaliziranog agresivnog parodontitisa. Na ortopantomogramu vidljiva je resorpcija korjenova na premolarima kao posljedica ortodontske terapije. Provedena je inicijalna terapija uz kombiniranu sistemsku antibiotsku terapiju. Iako je pri reevaluaciji zamijećeno poboljšanje, ponovljena je inicijalna terapija preostalih džepova, te provedena otvorena tehnika struganja i poliranja korijena u području lateralnih molara donje čeljusti te na lijevoj strani gornje čeljusti. Reevaluacija kirurške terapije pokazala je značajno poboljšanje, preostali parodontni džepovi su reducirani te je postignuta stabilnost zubi. DISKUSIJA Uspjeh terapije ovisi o početnom stanju bolesti, na vrijeme prepoznatim simptomima te točno postavljenoj dijagnozi. Osobito važno je poštivati protokol terapije što znači prvo provesti etiološku fazu terapije te nakon toga korektivnu fazu terapije.

### 8.2. THE FAILURE OF REGENERATIVE SURGICAL THERAPY IN POSTORTHODONTIC PATIENT WITH UNTREATED PERIODONTITIS: A CASE REPORT

Josipa Todorčić<sup>1</sup>, Ana Družijanić<sup>2</sup>, Andrej Aurer<sup>3</sup>

<sup>1</sup>*Premium dent d.o.o., Zagreb*

<sup>2</sup>*Dental polyclinic Split*

<sup>3</sup>*Department of Periodontology, School of Dental Medicine, University of Zagreb*

INTRODUCTION The patient came to our Department because of bleeding gums and recession. She had orthodontic treatment in her youth. She noticed the occurrence of diastema between the upper first incisors ten years ago but her dentist paid no attention. Horizontal bone loss was noted on orthopantomogram and a surgical implantation of xenogenic bone implant in the area of the upper incisors and the lower jaw laterally was carried out in 2007. The procedure was not preceded by initial periodontal therapy. Two years later, due to hypermobility of the teeth zircon immobilization splints for lower lateral teeth were made. The patient has family history of periodontitis. CASE REPORT After a detailed history the patient was diagnosed with generalized aggressive periodontitis. Orthopantomogram showed root resorption in premolars due to orthodontic treatment. Initial therapy with combined systemic antibiotic therapy was carried out. Although some improvement was observed during re-evaluation, the initial treatment of the remaining pockets was repeated and open technique scaling and root planning in the posterior molars of the lower jaw and the left upper jaw was conducted. Re-evaluation of surgical treatment showed significant improvement, the remaining periodontal pockets were reduced and the stability of teeth was achieved. DISCUSSION The success of treatment depends on the initial state of the disease, on the time of recognition of the symptoms and the right diagnosis. In particular, it is important to respect the protocol of treatment, which means performing etiological treatment phase first followed by a corrective phase of therapy.