

**KNJIGA APSTRAKTA/ABSTRACT BOOK**

## **PRESEDNİK KONGRESA**

### **NAUČNI ODBOR**

Predsednik: Prof. dr Vitomir S.  
Konstantinović

Prof. dr Dragan Krasić

Prof. dr Ružica Kozomara

Prof. dr Miroslav Vukadinović

Prof. dr Miroslav Ilić

Prof. dr Julio Acero

Dr Nicholas Kalavrezos

Prof. dr Manlio Galiie

Prof. dr Reha Kisnisci

Prof. dr Andrej Kansky

Prof. dr Vlado Popovski

Prof. dr Ramazan Isufi

Prof. dr Christos Perisanidis

Prof. Dr Jelena Milašin

Prof. dr Aleksandar Kiralj

### **ORGANIZACIONI ODBOR**

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Doc. dr Zoran Jezdić

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Dr Benjamin Nalić

Dr Ivana Mijatov

Dr Saša Mijatov

Dr Denis Brajković

Dr Predrag Stanić

### **SEKRETARIJAT KONGRESA**

Dr Denis Brajković

Dr Ivana Mijatov

**SVI APSTRAKTI SU OBJAVLJENI U ORIGINALNOJ VERZIJI KOJU SU  
AUTORI ISTIH DOSTAVILI NAUČNOM ODBORU**

## **PREDAVANJA PO POZIVU/INVITED LECTURES**

## **COMPREHENSIVE MANAGEMENT OF TUMORS OF THE MIDFACE. FROM VIRTUAL PLANNING TO RECONSTRUCTION**

Prof Dr Drhc Julio Acero

Head Dpt of Oral and Maxillofacial Surgery, Ramón y Cajal & Puerta de Hierro University Hospitals, Madrid (Spain)

In this lecture a comprehensive review of our approach to the management of the tumors affecting the midface is presented. The most advanced methods of virtual planning of the resection and reconstruction as well as how to transfer the planning into the surgical field by means of surgical guides and or navigation will be also discussed. Resection of a tumor in this complex anatomic region will be based in the location, size and type of the tissues involved in the defect. Reconstructive methods aiming to restore the defect after oncologic resection in the midface including the orbito-cranial region may include:

- Alloplastic Implants including patient specific implants.
- Local pedicled flaps.
- Regional pedicled flaps.
- Distant pedicled flaps.
- Microvascular flaps

Our reconstructive protocol will be presented. Indications and disadvantages of the different techniques will be discussed.

## **TRENDS IN SURGICAL RECONSTRUCTION OF PRIMARY CLEFT PALATE**

Reha S. Kisnisci

Professor in Oral and Maxillofacial Surgery

The presentation will be structured starting from outlining the current information on the surgical repair of cleft palate. This will lead to drawbacks and controversies of commonly used techniques and management protocols. Personal opinions of the evolved surgical approach will be shared and presented. Seldomly visited selected aspects of cleft care will also be discussed along with possible and required clinical research domain.

## **MAXILLOFACIAL INJURIES IN SLOVENIA**

Andrej Kansky

University Medical Centre Ljubljana, Clinical Department of maxillo-facial and oral surgery

At the University Medical Centre Ljubljana, Clinical Department of maxillo-facial and oral surgery, we see 300 trauma patients per year, 1/3 of them are outpatients, 2/3 have to stay in the hospital. Male : female ratio is 4 : 1, the patients age is from 1 to 95 years. The percentage of children (0-11) is small 5%. We observe mandibular fractures in 43%, zygomatic bone fractures in 32%, fractures of the orbit in 19%, fractures of nose in 6%, fronto naso orbital bone fractures (FNO) in 5%, temporal bone fractures in 3%, nasoorbitoetmoidal fractures (NOE) in 2%, panfacial fractures in 6%. In 10% we observe serious injuries of teeth. The average hospitalization time is 5 days. Open reduction and internal fixation (average time for operation is about 100 min) is standard treatment in most cases. In average we use 3 titanium plates and 12 screws per patient. The number of complications is in direct proportion to the severity of the injuries. In single bone fracture, most common complications is sensory disturbance, in multiple mandible fractures occlusion disturbances are common. In severe orbital fractures, in NOE and FNO, the main problem is double vision. Most casses need just one operative procedure, but 5% of the patients, need more than one operation.

Keywords: fractures of the facial skeleton, the proportion of facial skeleton injuries, operative treatment, complications of treatment

## **OROPHARYNGEAL CARCINOMA ARISING FROM MINOR SALIVARY GLAND: ANALYSIS OF DIAGNOSTIC AND TREATMENT MODALITIES**

Popovski Vlado

University Clinic for Maxillofacial Surgery, University "St. Cyril and Methodius", Skopje, North Macedonia

Aims: Minor salivary gland carcinoma occurs infrequently but may pose a diagnostic and therapeutic dilemma for the head and neck surgeon. The purpose of this study was to contribute for determining treatment protocol and predictors of survival in this kind of malignancy. Study Design: The clinical course of 39 consecutive patients with minor salivary gland carcinomas surgically treated on our clinic in five-year period was evaluated for the study. Comparison was created with relevant information concerning patient, disease, diagnostics and treatment distinctiveness. The efficiency of surgical resections and postoperative radiotherapy, were compared with recurrence, histology, grade, stage and local and distant metastases, as a prognostic factors. Rank regression procedure was conducted for analysis of survival.

Results: Prevailing of mucoepidermoid (38,4%) and adenoid cystic (35.9%) carcinoma was revealed with palate as a commonest site. Lymph node metastases were confirmed in 18% while in 23% neck dissections were concomitant. 16 patients underwent planned postoperative radiation therapy. Multivariate analysis on the lesions showed that histology grade ( $P < 0.01$ ), tumor size ( $P < 0.01$ ), bone extension ( $P = 0.014$ ), margin status and stage were associated with decreased survival. The recurrence rate at the primary site was significantly higher for adenoid cystic carcinoma than for other histology's ( $P < 0.005$ ). The average cumulative survival rate in follow up was 84%. Immunohistology was effective in distinguishing type and grade amongst adenocarcinoma, mucoepidermoid carcinoma and adenoid cystic carcinoma.

Conclusion: Exact preoperative assessment, staging and radical primary surgery irrespective of site and histological type are crucial to achieve best survival and loco-regional control for minor salivary gland carcinoma.

Keywords: Salivary gland tumor, computed tomography, immunohistochemistry, radiotherapy, regional control, survival.

## **MANAGEMENT OF CONGENITAL DEFECTS OF THE LIP AND PALATE IN THE CONTEXT OF ACCOMPANYING SYNDROMES AND ANOMALIES**

Prof. Dr. Ramazan Isufi - Head of the Department of OMF Surgery and Preclinical Subjects,  
Faculty of Dental Medicine, University of Medicine, Tirana

The treatment of lip and palate defects, when they are accompanied by syndromes, requires surgeons to have not only a great Practical experience, but also to have knowledge on the anatomy of defects and about syndromes and anomalies, as well as knowing the 3D reconstruction of the face and head, without forgetting the risk that these children have in order survive when accompanied by syndromes. The management of cleft children begins in the first 3d - 4th months of intrauterine life through 3D echo. The early detection of these defects is important, not only to determine the diagnosis, but also for the education of the parents, their psychological preparation and gives the opportunity to detect any chromosomal abnormality. This early diagnosis also gives the parents the choice to continue or not the pregnancy, and gives time for the possibility of any prenatal surgery. It is also important to explain to parents that so far nothing is known about the prevention and occurrence of these anomalies and that these are also the reasons that sometimes they are diagnosed late. Genetic consultation is very important because it solves the genetic basis of present syndromes as well as the risk for recurrence in future births. The most frequent syndromes that accompany congenital defects of the lip and palate are: Stickler syndrome, 22q 11 deletion syndrome, Pierre Robin syndrome, Down syndrome, Von der Woude syndrome, Velo - cardio facial syndrome, Treacher Collins syndrome, etc. The incidence of present syndromes is greater in children with partial defects of the palate, approximately 50% of them, without excluding the lip clefts. It is important for the surgeon to have knowledge on the syndromes that may accompany these defects not only for the surgical approach, but also for the management of

the post natal first months of life. For example, Pierre Robin syndrome requires a tracheostomy right after birth in the vast majority of cases in order to solve the possibility of asphyxia, and the placement of the naso-gastric tube for their feeding. In Albania, congenital defects of the lip and palate, both non-syndromic and syndromic, are treated only by the Maxillo Facial surgeon, so there is a great responsibility in their management.

Keywords: Maxillofacial surgeon; Syndromes; Clefts; Lip and Palate Clefts, Management of Clefts in Syndromes

**SIMPLE ONE-STEP IMPLATOLOGY: NO AUGMENTATION, NO PATIENT SELECTION. FIXED TEETH FOR EVERYBODY. INTRODUCTION INTO THE WORK WITH THE CORTICOBASAL(R) IMPLANTS**

Dr Stefan Ihde

The lecturer (from his own experience and based on scientific literature) explains that the old method of "osseointegration", which had for long served the profession, is outdated and full of flaws. It does not meet the expectations of the patients and causes severe problems the longer dental implant stay in the oral cavity.

The anchorage of implants in the cortical bone (as done in the field of traumatology) has overcome the major problems which are associated to conventional oral implantology. With Corticobasal(R) implants almost all patients may be treated without any bone augmentation and in the protocol of immediate functional loading. This technology also avoids the occurrence of "Peri-Implantitis". Patient selection is not done for this technology, as long as the qualified treatment provider can carry out a comprehensive treatment protocol.

Treatment possibilities are illustrated on many cases and general explanations on the technology are given.



# THE TOTAL PLATYSMA MUSCLE TRANSECTION, A SOLUTION TO IMPROVE FACELIFTS LONG-TERM OUTCOMES IN SELECTED CASES: A CLINICAL AND ANATOMICAL STUDY.

Jean-Paul Meningaud<sup>1</sup> · Simone La Padula<sup>1,2</sup> MD PhD

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2) Department of Plastic and Reconstructive Surgery, Università degli studi di Napoli Federico II, Via Pansini 5, 80131 Napoli, Italy.

**Introduction.** Determining which facelift technique provides the best long-term rejuvenation results and the best stability over time is a major question in cosmetic surgery: does the most invasive surgery produce the best long-term results? The purpose of this study is to assess the authors' total platysma muscle transection technique and to show the rationale of their procedure through an anatomical study.

**Material and methods.** Ten consecutive cadaveric SMAS and platysma dissections (20 heminecks and faces) were performed by our team to study the innervation. The authors present a series as well of 80 patients who have benefited from a total transection of their platysma muscles. Cosmetic outcomes were assessed using an objective face assessment scale. The scores calculated by 3 blind evaluators before surgery, 1, and 5 years postoperatively were compared using a matched T-Test. A p value of < 0.05 was considered significant.

**Results.** Cadaveric dissections showed a constant and rich anastomotic system between the cervical branch of the facial nerve and the branches of the cervical plexus that innervates the platysma. Clinical outcomes were satisfactory, with a significant improvement in the overall appearance of the treated areas ( $p < 0.00001$ ).

**Conclusions.** Our anatomical findings explain the rationale for total transection of the platysma muscle to provide long-lasting results. Authors' technique allows to achieve satisfactory long-term results with a low complication rate. However, considering the longer operating time, the difficult learning curve, the longer postoperative discomfort, we do not think that it has to be implemented systematically. It should be considered only in severe platysma bands cases, and especially in intractable cases. Other combined techniques are sufficient in most cases.

**Keywords:** facelift, rejuvenation surgery, SMAS flap, platysma muscles transection, platysma myotomy, cervicoplasty, ageing, face scales.

## **SURGICAL CORRECTION OF NON-SYNDROMIC CRANIOSYNOSTOSIS**

Kilipiris Evangelos

Craniosynostosis, the premature closure of cranial sutures, has existed since ancient times. Overall, it affects approximately 1 in 2000-2500 children, with the vast majority of cases classified as non-syndromic. Surgical correction is recommended before the first year of life.

Although surgery for craniosynostosis may be challenging due to the unique anatomic and physiologic characteristics of infancy, recent advances in the perioperative management of these patients have resulted in reduced morbidity rates and impressive results.

The aim of the current talk is to provide an overview of the contemporary surgical management of non-syndromic craniosynostosis. The basic classification, pathophysiology, current diagnostic methods, and surgical goals will be analyzed. A significant focus will be given to the surgical approach -particularly the open cranial vault reconstruction. Most common complications will be discussed, and long-term results will be presented.

A central component of the presentation will be the implementation of a comprehensive multidisciplinary culture and strategy to guide craniofacial teams in delivering optimal care to pediatric craniofacial patients.

## **VIRTUAL SURGICAL PLANNING IN MAXILLOFACIAL SURGERY/RECONSTRUCTION**

Emil Dediol, MD, PhD,

Medical school, University of Zagreb, Croatia, Department of maxillofacial surgery, University Hospital Dubrava, Zagreb, Croatia

Our aim was to define indications for the use of virtual surgical planning (VSP) in maxillofacial surgery. In the study are included patients operated at the Department for Maxillofacial Surgery, University Hospital Dubrava, Zagreb in the period of 2016 til 2022. Also the technique of preoperative planning was assesed. The main indications where we used VSP were mandibular reconstruction, reconstruction of the maxilla, soft tissue reconstruction, orbital reconstruction and orthognathic surgery. Cases of every indication are presented and discussed in detail. In this period all the patients were being planned completely by virtual surgical planning (VSP) utilising special software, CT scans and scanned dental models. With VSP the aesthetic appearance of the patient dramatically improved because planning of the reconstruction is precise and predictable and the surgery is also less time consuming .

## **GLABELLA IMPLANT- AN ADVANCED ONCOLOGY TOOL**

Vivek Gaur

Department of Oro maxillofacial surgery, Jaipur Dental College Maharaj Vinayak Global  
University

Jaipur, Rajasthan, India.

The aim of this presentation is to emphasize on the tripodization of the implant reconstruction for post resection cases rehabilitation and achieving better prognosis. Resection aim to successfully eliminate the disease part of orofacial region results in the orofacial defect resulting in the negative impact on the patient quality of life, functionally and psychologically. Masticatory and speech activity is at-most affected as of oroantral / oropharyngeal communication resulting these patients as “forgotten patients” if the orofacial rehabilitation of such patient is not completed.

Such patients have very extensive bone loss where the vestibular space is also compromised which results in difficulty to restore them with retentive removable functional obturator prosthesis. Dental implants are the only method / means to provide and restore obturator/ prosthesis with masticatory functional units. But when there is marked atrophy post resection, leading to deficient zygomatic bone, pterygoid apophysis, maxillary palatal bone and all the alveolar bone , placement and retention of the implants gets difficult questioning the long term prognosis of the construction. Reconstruction with free vascularized autogenous grafts also get difficult as to retain them some amount of healthy native bone is necessary, other than the associated comorbidities.

The construction with quad zygomas prognosis may be questionable with as the original protocol of zygoma introduced by Prof. Brenmark to have at-least 2 rigid fixtures splinted with zygomas to overcome the flexural property associated with long zygoma implants fixed only at one end of zygoma bone .

Here the speaker has done work on implants engaging the glabella and splinting the implant with zygomatic / pterygoid implants which ever possible, thus creation Tripodization enhancing the prognosis of the construction. The concept of “tripodization“ is logically explained by BURCH 1980, when three contact point is produced , the forces are directed axially thereby eliminating potential damaging the off-axis forces for the system / construction. ....

Glabella implant placement should be under category for craniomaxillofacial implantology, here the author has achieved all the placements flapless keeping the procedures least traumatic for the patients ....

## **SELECTIVE NECK DISSECTION NECESSARY OR NOT IN PATIENTS WITH LOWER LIP CARCINOMA T1 AND T2**

Mergime Prekazi Loxha

University of Prishtina, Faculty of Medicine, Department of Maxillofacial Surgery, Kosovo\*

**Introduction:** Squamous cell carcinoma of lower lip is one of the most frequent malignant pathologies in maxillofacial region. Lip cancer is the second most frequent, after skin cancer. During the period of fifteen years in our department we have treated 789 patients with SCC of lower lip. Majority were males (89%). The patients with T1 and T2 had better prognosis. The role of selective neck dissection is still discussed as a surgical procedure in T1 and T2, specially in cases with no evidence of positive neck lymph nodes. The aim of our research is to find the better method for detecting metastases in the neck in patients with squamous cell carcinoma of the lower lip and to choose the better treatment for those patients. **Material and methods:** 31 patients with Squamous cell carcinoma of lower lip T1,T2,Nc0 admitted in the Department of Maxillofacial Surgery in Pristina, from December 2010 till March-2012 have been analyzed for detection of possible metastasis in the neck.. Lymphoscintigraphy has been made the day of surgery with Tc99m-Sncolloid dissolved in 0.3 ml of saline solution applied at 4 peritumoral sites. After detection the sentinel lymph node was extirpated and biopsy has been done. **Results:**Of all patients 9,2% were females and 90,7% were males. Average age of patients was 61. 71% of patients were T1 and 29% T2.Sentinel nodes were detected with Lymphoscintigraphy (LSG) in 21 patients (67,7%)., positive LSG in T2 patients was 88% vs. 22% in T1. In 21 patient (67,7%) with positive lymphoscintigraphy Sentinel node biopsy resulted positive in 47,6%. Metastasis were found in 32% of total number of patients. **Discussion:** In our study lymphoscintigraphy combined with emediate biopsy of sentinel node shows very good results in the treatment of neck in patients with Lower lip carcinoma T1-2, Nc0. In T2 patients role of lymphoscintigraphy and selective neck dissection should be discussed.

## **EVALUATION OF THE EFFICACY OF IN-HOUSE PRINTING TO MANAGE MAXILLOFACIAL DEFECTS IN MICROVASCULAR SURGERY**

Drago Jelovac

Clinic for maxillofacial surgery, Faculty of Dental medicine, University of Belgrade

Reconstruction of the Midface and mandibular region is still a challenging problem. Complex maxillo-mandibular three-dimensional reconstruction is crucial with regards to occlusion, function, and aesthetic appearance. Virtual 3D planning has become routine tool in daily practise.

From 2017-2022 totally 44 patients included in the study at the Clinic for Maxillofacial Surgery, School of dental Medicine, University of Belgrade. 3D Slicer, 3D studio max Autodesk software

were used. Printing technique was fused deposition modelling (FDM). The 39 patients were treated by free flaps and 5 treated by iliac crest flap. Among group of 11 patients who were treated with implants 8 pts got in simultaneous manner with free flap transfer (fibular free flaps (composite and osseal), scapular tip flap, (deep circumflex iliac artery) DCIA. The iliac bone graft was used in 5 cases of mandibular ameloblastoma.

The technique and cases are demonstrating the utility of 3D preoperative planning. 3D bio models and 3D printed surgical guides (PLA) used for fibular osteotomies, DCIA and scapular flap with short bicon implants insertion. The average ischemia time within the target group of pts was 126 minutes. The average time of surgery was 10.09 hours. The postoperative course was uneventful. Average duration of hospitalisation was 8.5 days. The success rate was 100%.. All opened implants were Osseo integrated (100%).

This study showed adequate precision of virtual planning in head and neck reconstructive microsurgery and free grafts planning. The usage of PLA guides is safe and optimal tool for intraoperative simultaneous osteotomies and resection and implants insertion.

The future directions in maxillofacial reconstructive microsurgery should be focused on inhouse software and printers development.

## **SURGICAL MANAGEMENT OF LOCALLY ADVANCED ORAL CAVITY CARCINOMA WITH NONSURGICAL INSIGHT AND FUTURE DIRECTIONS**

Saša Jović<sup>1</sup>, Gordana Šupić<sup>2</sup>

<sup>1</sup> Clinic for Maxillofacial Surgery, Military Medical Academy, Belgrade, Serbia

<sup>2</sup> Institute of Medical Research, Military Medical Academy, Belgrade, Serbia

**Objectives:** Approximately 500.000 new cases of oral cancer (OSCC) are diagnosed each year worldwide. Due to the high mortality it is suffice to say that the prognosis is poor. At present, from the procedural aspect, III and IVa stage tumors represents an important challenge in maxillofacial surgery. It may cause losses of many essential functions due to the extensive destruction of the complex head and neck anatomy. Wide surgical margins in initially massive tumors require immediate reconstruction. Also, we aimed at investigating the association of TP53 gene pathogenic mutations with survival and response to cisplatin chemotherapy, as well as variant rs9344 in CCND1 gene in the susceptibility and prognosis of OSCC patients.

**Methods:** We retrospectively reviewed stage III and IV patient charts over the period of the last 5 years. All patients were admitted to the Clinic for Maxillofacial Surgery at the Military Medical Academy in Belgrade. Patients had resection of the stage T3 and T4 oral cancer performed combined with bilateral neck dissections, followed by facial reconstruction with microvascular free flaps and pedicled musculocutaneous flaps. The current study for CCND1 single nucleotide polymorphism included 104 OSCC patients and 107 healthy individuals without a cancer history and exons 4-8 of TP53 gene mutations were investigated in tumor tissue of 82 HPV-negative OSCC patients.

**Results:** All patients successfully recovered from the surgery. In addition, they received postoperative radiation and chemotherapy. Few patients had early postoperative complications but recovered during hospitalization. Patients have been closely followed for up to four years. Patients with pathogenic TP53 mutations had significantly shorter survival time and GA and homozygous mutated AA genotypes for the rs9344 polymorphism are associated with an increased oral cancer susceptibility.

**Conclusions:** Radical en-bloc resection remains the mainstay of treatment. The chosen reconstructive technique mostly depends on the extent and functional characteristics of the involved tissue. Polymorphism rs9344 in the CCND1 gene could be a potential molecular risk factor for OSCC susceptibility, but not for disease prognosis. Pathogenic TP53 mutations could be a prognostic marker of reduced overall survival and poor response to cisplatin chemotherapy.

## **MALIGNI MEZENHIMALNI TUMORI GLAVE I VRATA , NAŠA ISKUSTVA U PERIODU OD 2010 DO 2021.**

Trajković Miloš, Krasić Dragan

Univerzitet u Nišu, Medicinski fakultet, Maksilofacijalna hirurgija

Sarkomi su maligni tumori vezivnog tkiva. Nasuprot karcinomima ovo su po učestalosti znatno redji tumori. Javljaju se u svakom životnom dobu. Sarkomi su tumori koje karakteriše infiltrativni i veoma agresivni rast. Rano prodiru u krvotok i metastaziraju hematogenim putem, dominantno infraklavikularno, najcesce u pluca. Drugi organi, kao jetra, kosti i mozak retko su zahvaceni procesom diseminacije. Metastaze u regionalnim limfnim žlezdama su retkost.

Pojava sarkoma je znatno učestalija kod pacijenata sa von Recklinghausenovom bolešću (neurofibromatozom), Gardnerovim sindromom, Wernerovim sindromom, tuberoznom sklerozom, bazal-ćelijskim nevus sindromom i Li-Fraumenijevim sindromom (mutacija gena p53).

Nema previše saznanja o mogućim etiološkim faktorima i faktorima rizika. Poznato je da ih može inicirati zračenje jer se mogu pojaviti u (rubno) ozračenoj regiji (rubno područje), kao i kod bolesnika ranije lečenih zračenjem. Karakteristična je pojava sarkoma kod osoba lečenih ranije u dečijem uzrastu zbog hematoloških neoplazmi sa alkilirajućim citostaticima.

Prezentovana retrospektivna studija obavljena je na Klinici za Maksilofacijalnu hirurgiju u Nisu periodu od 2010 do kraja 2021.god. Tretirano je 583 bolesnika sa benignim mezenhimalnim tumorima i 38 bolesnika sa malignim mezenhimalnim tumorima. U radu su prikazana naša iskustva u tretmanu bolesnika sa malignim mezenhimalnim tumorima.

Prognoza lečenja sarkoma je definitivno losa. Petogodisne prezivljavanje varira u promeru od 17% do 25% , budući da se kod tumora u području trupa, retroperitoneumu i glave i vrata vrlo često ne može sprovesti radikalno hirurško lečenje obzirom na ekstenzivnost procesa.. Optimalni plan lečenja bazira na adekvatnom određivanju stadijama bolesti i multidisciplinarnom pristupu

(radiolog, patolog, hirurg i onkolog). Lečenje pacijenata sa sarkomima ne bazira samo na hiruškom lečenju već i na primeni radio i hemio terapije (postoperativno i preoperativno).

## **CURRENT TRENDS AND MANAGEMENT OF HEAD AND NECK SARCOMAS**

Nicholas Kalavrezos, FRCS, MD University College London Hospitals, Harley Street Clinic  
London, UK

Sarcomas are rare, malignant bone and soft-tissue tumours of mesenchymal origin, and their overall incidence accounts for 1% and 0.2% of all malignancies. The aim of this presentation is to provide a reference on the evolving management concepts and trends of treatment of adult sarcomas of the head and neck in a major head and neck sarcoma centre. Early diagnosis remains a challenge due to non-specific symptomatology. Imaging such as ultrasound (US), magnetic resonance (MRI), computed tomography (CT), and positron emission tomography (PET CT) assist with diagnosis and staging, and biopsy is essential for diagnosis, tumour differentiation, and grading. Staging is dependent on histological grade, size of tumour, and metastasis. Sarcomas spread via the haematogenous route. Adequate clearance of locoregional disease and prevention of distant micro metastases are key to improved disease-free survival outcomes so multimodal treatment at a sarcoma reference centre is imperative. In the head and neck, the treatment for most bone sarcomas is neoadjuvant chemotherapy followed by compartmental resection. The interim tumour response to neoadjuvant chemotherapy is evaluated by PET CT and MRI. Heavy-particle therapy (proton beam) in combination with surgery is increasingly being used to treat otherwise unresectable disease, particularly in children. For soft tissue sarcomas of the head and neck, treatment is complex and depends on grade. Surgery is the principal mode of treatment in low-grade tumours that are amenable to resection. High-grade tumours can be treated with neoadjuvant chemotherapy followed by surgery and radiotherapy. In such cases, the response to the chemotherapy might be used as a guide of potential biological aggressiveness having an impact on the planning of the operation and the type and extent of radiotherapy. Finally the survival advantage of innate immune-modulation remains uncertain for sarcoma disease in the head and neck. The cumulative -20 years- experience of the London Sarcoma Service based at the University College London in the management of the head and neck sarcomas will be presented.

## **RETROGRADE PERI-IMPLANTITIS: AN EVIDENCE-BASED APPROACH**

Prof. Hani A. Salam, BSc, MSc, DDS, PhD, OMFSA, FICD

Oral & Maxillofacial Surgeon

Dental implants have revolutionized the management of patients with missing teeth over the last few decades. Despite the high success of dental implants, biological complications continue to be a challenge for practitioners. This presentation will provide a critical overview of the controversies related to retrograde peri-implantitis, explore associated factors contributing to it, and attempt to

provide guidelines for treatment, based on the most recent evidence-based scientific literature, therefore, contributing to improved patient care.

## **SURGICAL CORRECTION OF MANDIBULAR PROGNATISM**

Jezdić Zoran

Clinic for maxillofacial surgery, Faculty of Dental Medicine , University of Belgrade

Mandibular prognatism is a skeletal deformity characterized by overdevelopment of the lower jaw in both sagittal and transversal directions. It could be a developmental or acquired anomaly. In 1849, the first surgical correction of mandibular prognatism was performed by Hüllihen. As one-third of all surgical interventions in orthognathic surgery, the modification of this deformity is the most prevalent intervention.

Thirty years ago, the main focus was on lower jaw surgeries. More than three-quarters of patients were treated in this way. Nowadays, it is known that mandibular prognathism in most cases is accompanied by hypoplasia of the maxilla, and the need for bimaxillary procedures has been developed. The advantages of ostectomy, especially in correcting mandibular prognathism, are various. One of the crucial changes in a skeletal relationship is better esthetic appearance. Clinical research showed faster functional adaptation after maxillar and bimaxillary corrections. Greater stability of postoperative results is also cited as an advantage of these surgical interventions, but opinions on this are still divided. The overall change of the soft tissues of the middle third of the face is more pronounced after bimaxillary surgical procedures compared to single-jaw procedures, especially in the region of the chin, lower lip, and nasolabial fold. Achieving optimal function and aesthetics in these patients requires a combined orthodontic-surgical approach. The most significant disadvantage is certainly the complexity and difficulty of the surgical procedure itself, the possibility of postoperative bleeding, the instability of the position of the upper jaw during positioning, as well as the postoperative rotation of the lower jaw.

## **PRINCIPI I NOVINE U LEČENJA BOLESNIKA SA ORALNIM KARCINOMOM**

Prof dr Ružica Kozomara

Klinika za maksilofacijalnu hirurgiju Vojnomedicinske akademije

Univerziteta Odbrane u Beogradu.

Oralni karcinom čini oko 3% svih malignih tumora. Klinička slika, toku bolesti, način lečenja, prognoza i uspešnost lečenja značajno se razlikuje u zavisnosti od lokalizacije primarnog tumora. Agresivnost ovog karcinoma karakteriše lokalna infiltracija, izražen metastatski potencijal, visok procenat pojave recidiva bolesti i kratko ukupno preživljavanje. O uzrocima i kliničkoj slici oralnog planocelularnog karcinoma uključujući i prognozu za pacijenta zasnovanu



na TNM sistemu određivanja stadijuma bolesti, danas se mnogo zna. To, međutim, nije dovelo do značajnijeg poboljšanja u lečenju bolesnika sa oralnim karcinomom, te su danas prihvaćeni i dopunski prognostički parametri za preciznije određivanje stadijuma bolesti. Novi prognostički parametri doneli su i novine u sistemu TNM klasifikacije malignih tumora usne duplje što je uticalo i na promene i stadijum bolesti. Svaki stadijum ima određene specifičnosti u odnosu na lečenje. Kod pacijenta kojima se može izvršiti radikalno hirurško lečenje postoperativno se sprovodi i radioterapija. Neki prognostički parametri u cilju sistemske kontrole bolesti ukazuju na neophodnost primene hemioterapijske potencijaciju uz radioterapiju. Drugi specifični modaliteti lečenja zahteva procenu stanja pacijenta i uznapredovale bolesti. Odluka o daljem lečenju bolesnika kojima se javi progresija bolesti zahteva posebnu informisanost o prethodno primenjenoj terapiji i vremenskog perioda do progresije bolesti. Danas postoje i savremeniji protokoli koji podrazumevaju primenu hemioterapije i biološke terapije, trenutno dobri rezultati postižu se primenom monoklonskog antitela epidermalnog faktora rasta. Sigurno da se očekuju i rezultati i odobrenje za primenu imunoterapije za lečenje bolesnika s oralnim karcinomom, a nadamo se i boljim rezultatima za primenu genske terapije. Bolesnici kod kojih su iscrpljeni navedeni modaliteti lečenja i narušeno opšte funkcionalno stanje života primenjuje se simptomatska terapija.

## **COMBINATION TERTAMAN THREADS LIFTING, FATGRAFTING AND LASER TRETMAN**

Brankica Tepavčević

**Background:** The process of skin aging with consecutive deterioration of facial appearance has been recognized as significant predictor of quality of life (QoL) impairment. During the past two decades numerous procedures for facial rejuvenation have been devised. It is clear that patients prefer minimally invasive procedures, which allow a rapid recovery with low risk for complication.

**Aim:** The aim of this study was to investigate the combine effect of threads lifting, fatgrafting and laser treatment.

**Methods:** During the period August 2020- August 2021, 48 patients experienced combine procedure including threads lifting, fatgrafting and laser treatment. Surgical results were evaluated subjectively (patient satisfaction ratings) and objectively (blinded physician ratings ) ovde the 1 year of follow-up.

**Results:** No major complications (postoperative hematoma, infection, or temporary sensory/motor decreases) were observed. The mean procedural time was 60 -80 minutes, and all patients underwent local anesthesia. Patient satisfaction was the highest at 1 month postoperatively (mean, 4.7/5.0), and consequently tend to decrease at 1 year after (3,8/5.0). The scores on the objective assessment followed the same trend (4.5/5.0 at 1 month; 4, 1/5.0 at 1 year). The same tendency was observed in QoL selfestimation.

**Conclusion:** Using combination of threads lifting , fatgraffting and laser tretmant are simpler, quicker, and less invasive than using conventional surgical methods. It has been shown that this procedure had satisfactory results for at least 12 months with special effect in QoL improvement.

## **BSSO TECHNIQUE IN MANAGEMENT OF DENTO-MAXILLARY ANOMALY**

Dr.Renato Isufi<sup>1</sup>; Dr.Aurora Isufi <sup>2</sup> ; Prof.Dr.Ramazan Isufi <sup>1</sup>

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The treatment of dentofacial deformities has come a long way since Willy Blair, with Edward Angle, completed bilateral body osteotomies under chloroform anesthesia to setback a prognathic mandible and establish an improved occlusion. The field of orthognathic surgery advanced by small increments over the next 6 decades until Hugo Obwegeser executed what has now become the three classic orthognathic procedures: Le Fort I (maxillary) osteotomy with down-fracture and disimpaction; intraoral sagittal split ramus osteotomies of the mandible BSSO; and the intraoral oblique osteotomy of the chin. An important component of orthognathic surgery is the bilateral sagittal split osteotomy (BSSO), which is the most commonly performed jaw surgery, either with or without upper jaw surgery. Indications for a bilateral sagittal split include horizontal mandibular excess, deficiency, and/or asymmetry. It is the most commonly performed procedure for mandibular advancement and can also be utilized for a mandibular setback of small to moderate magnitude.

Keywords: bilateral sagittal split osteotomy, mandible, orthognathic

### **METASTATSKI TUMORI ORALNE LOKALIZACIJE**

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Metastatski tumori locirani u oralnoj regiji su veoma retki. Mnogo se češće nalaze u kostima vilice nego u mekim tkivima oralne lokalizacije. Najčešća lokalizacije primarnih tumora su dojke, pluća, bubrezi, kosti i kolon. Najčešća primarna lokalizacija tumora koji metastaziraju u oralnu regiju podrazumeva tumor dojke i to češće u kosti donje vilice dok pluća češće metastaziraju u meka tkiva usta (gingivu i jezik). U skoro 30% slučajeva metastatska lezija oralne lokalizacije je indikator za otkrivanje primarnog tumora, i pored razvijenog skrininga za otkrivanje tumora dojke, pluća i kolona. Smatra se da je većina metastaza u oralnoj regiji hematogene prirode te da se maligni embolus preko vertebralnog venskog sistema deponije u oralnu regiju. Značajno je

odvojiti tumore lokalizovane u kosti i lokalizovane u mekim tkivima obzirom na učestaliju pojavu koštanih metastaza. Bez obzira na nisku učestalost potrebno je dobra korelacija klinički slike, radioloških tehnika i saradnja stomatologa, maksilofacijalnog hirurga, radiologa i patologa je bitna za dijagnostiku tumora ove lokalizacije pogotovo u slučajevima gde primarni tumor nije dijagnostikovano.

ključne reči: metastaze, mukoza, gingiva, primarni tumor

## **SURGICAL DECOMPRESSION IN THYREOID EYE DISEASE: GUIDELINES AND CURRENT EVIDENCE**

Manlio Galie'

Endocrine Orbitopathy (EO) is the most frequent and important extrathyroidal stigma of Graves' disease. In the active stage of the orbitopathy fibrosis and hypertrophy of the extra-ocular muscles can lead to visual impairment and diplopia. In the stable phase of the disease surgical treatment by orbital expansion and/or orbital decompression can improve the quality of life and it is indicated for morpho-aesthetic and functional reasons. The surgical technique used should be adapted to the individual patients' needs. In severe cases intraorbital fat removal and bony decompression can be and carried out in one surgical procedure. An integrated global approach by a multidisciplinary team is strongly recommended. Strabismus surgery is a significant part of the overall treatment. The Author suggest general surgical guidelines and an algorithm of treatment in EO.

## **DISFAGIJA KOD MALIGNIH TUMORA GLAVE I VRATA**

Doc. dr Jelena Sotirović  
Klinika za ORL, VMA

Disfagija se javlja u okviru simptomatologije malignoma glave i vrata, ali može nastati i kao posledica lečenja ovih pacijenata, pri čemu su postojeći problemi obično pogoršani sprovedenim lečenjem. Hiruško lečenje i hemio/radioterapija (HT/RT) pacijenata sa malignim tumorima glave i vrata dovode do oštećenja neuromuskularnih i senzornih struktura koje utiču na sve faze gutanja. Disfagija nakon hirurškog lečenja ovih pacijenata zavisi od mesta primarnog tumora, stadijuma bolesti, obima hirurške resekcije i rekonstruktivnih metoda. Terapijska ili adjuvantna RT i HT utiču i na oralnu i na faringealnu fazu gutanja. Primena intenzitet modulisanog RT (IMRT) u velikoj meri poboljšala je negativan uticaj RT na akt gutanja. Traheotomija uradjena zbog postojećeg tumora ili sprovedenog lečenja dodatno pogoršava akt gutanja kod ovih pacijenata. Malnutricija, kaheksija i aspiracija kao posledica neadekvatnog akta gutanja mogu dovesti do produženog i komplikovanog postoperativnog toka, onemogućenog sprovođenja HT/RT, ali i psihosocijalnih posledica kod pacijenata sa malignomom u regiji glave i vrata. Evropsko udruženje za poremećaje gutanja (European Society for Swallowing Disorders, ESSD) daje smernice za dijagnostiku i

terapiju orofaringealne disfagije kod pacijenata sa malignomima glave i vrata. Dijagnostika obuhvata primenu testova za procenu akta gutanja i instrumentalne dijagnostičke metode (videofluoroskopija, fiberoptička endoskopska evaluacija gutanja- FEES, manometrija). Lečenje disfagije u osnovi podrazumeva modifikaciju konzistencije bolusa, primenu specifičnih vežbi i hirurško lečenje. Iako je onkološka kontrola bolesti bez sumnje najvažnija, multidisciplinarni pristup pacijentima sa malignim tumorima glave i vrata omogućuje postizanje adekvatnog nutritivnog statusa neophodnog za proces izlečenja, ali i boljih funkcionalnih rezultata onkološkog lečenja.

## **IZOLOVAN RASCEP SEKUNDARNOG NEPCA**

Prof. dr Radoje Simić

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Dr sc. med. Nemanja Ranković, Odeljenje plastične i rekonstruktivne hirurgije, Institut za zdravstvenu zaštitu majke i deteta Srbije „Dr Vukan Čupić”

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Orofacijalni rascepi predstavljaju najčešće kongenitalne anomalije lica. Incidencija izolovanog rascepa nepca (IRN) je 1-25/10000 novorođenčadi. U periodu od 10 godina na Odeljenju plastične i rekonstruktivne hirurgije Instituta za zdravstvenu zaštitu majke i deteta Srbije hospitalizovano je 1016 pacijenata sa anomalijama lica. Orofacijalne rascepe imalo je 38,8% pacijenata od kojih je kod 46,2% dijagnostikovano IRN. Totalni rascep nepca imalo je 36,2% pacijenata, subtotalni rascep 28,2%, rascep mekog nepca 15,8% dok je submukozni rascep imalo 19,7% pacijenata. Submukozni rascepi činili su 9,6% pacijenata sa orofacijalnim rascepima. Kod devojčica je češći IRN (53,3%) dok su dečaci češće imali submukozni rascep nepca (64 %). Udružene anomalije imalo je 35,6% pacijenta sa IRN. Najčešće su dijagnostikovane anomalije šake i stopala (44%), anomalije urinarnog trakta (34%) i srčane anomalije (11%). Pierre Robin sekvencu imalo je 14% pacijenata sa IRN. Submukozni rascepi su najčešće dijagnostikovani u uzrastu od 38,3 meseci kada su i operisani. Kod pacijenata sa IRN primenjivali smo operativne tehnike autora Veau-Kilner-Wardill (85,9%), Furlow-a (12,8%) i najređe tehniku autora Langenbeck-a (1,3%). Kod submukoznih rascepa nepca najčešće je primenjivana tehnika autora Furlow-a (67,7%) a potom Veau-Kilner-Wardill tehnika. Nakon rekonstrukcije rascepa nepca 4,8 % pacijenata operisano je zbog velofaringealne insuficijencije.

**ORALNE I POSTER PREZENTACIJE/ ORAL AND POSTER  
PRESENTATIONS**

## 1. NAŠA ISKUSTVA U TRETMANU TUMORA OČNE DUPLJE

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Orbita u najširem smislu predstavlja kavitet koji sadrži strukture esencijalne za okularnu funkciju i koštanu strukturu koja ih okružuje. Ovu kompleksnu anatomske strukturu je još Whitnall upoređio sa kruškom sa najvećim otvorom napred i sužavanjem ka vrhu. Tumori orbite su retke bolesti oftalmičke patologije 3.5- 4%. Oni su veliki izazov za dijagnostiku jer su predstavljeni velikim brojem znakova i simptoma koji se teško dijagnostikuju u početnom stadijumu a takođe mogu da imitiraju i druge patološke procese. Na samom apeksu očne duplje mnoštvo osetljivost struktura može da dovede do njihovog bespovratnog oštećenja i kod ranog stadijuma nekih tipova tumora.

Osnovna podela tumora je na benigne i maligne, koji mogu biti primarni i sekundarni. Najčešći primarni benigni tumori orbite su hemangiomi, dermoidne ciste, eozinofilni granulomi, meningeomi, različiti fibromi, osteomi, lipomi, tumori nervnog porekla i teratomi. Najčešći primarni maligni tumori su limfomi i sarkomi. Najčešći benigni tumori suzne žlezde su adenomi, a maligni adenokarcinom i maligni mikstus tumor. Papilomi su najčešći benigni tumori suzne kese, dok su planocelularni karcinomi najčešći maligni tumori. Sekundarni tumori dospevaju u orbitu iz okolnih regija, per continuitatem, ili metastatski, iz udaljenih regija putem krvotoka i limfotoka.

U orbiti uvek možemo naći i razne zapaljenske lezije, slične tumoru, tzv. zapaljenske pseudotumore, kao što su inflamatorni pseudotumor, Wegenerova granulomatoza, sarkoidoza, nodularni fasciitis, lipogranulomi, mukokele. Ova stanja mogu dati kliničku sliku tumora orbite. Takođe, orbitu mogu da zahvate i razore oboljenja slična tumoru kao što je neurofibromatoza i fibrozna displazija kosti lica i lobanje.

U periodu od 2010. godine do 2022. godine na klinici za MFH Niš hospitalizovano 60 bolesnika sa tumorima očne duplje. Kod 26 bolesnika se radilo o malignim tumorima, primarnim i sekundarnim. U 21 bolesnika registrovani su primarni benigni tumori orbite. Dok se kod 13 bolesnika radilo o ostalim oboljenjima očne duplje, kao što su Gravesova bolest, strana tela, hronične inflamatorne lezije. Hirurška terapija tumora orbite je i najefikasniji vid terapije. Nakon adekvatne pripreme bolesnici su hirurški tretirani različitim orbitotomijama, bilo prednjim, lateralnim, medijalnim ili gornjim, u zavisnosti od lokalizacija tumorskih promena. Kada je bilo neophodno iste su rađene timski sa neurohirurzima i oftalmolozima.

Dobra dijagnostika, adekvatna hirurška tehnika, uigran tim su neophodni u tretmanu ove veoma specifične i zahtevne hirurške regije. Naša škola hirurgije daje mogućnosti, da uz neophodnu dodatnu edukaciju, uspešno tretiramo ovakve patološke entitete i osvojimo ovu hiruršku regiju koja nam je veoma bliska i čija su nam vrata odškrinuta.

## **2. PRELOMI DONJE VILICE, PETOGODIŠNJE ISKUSTVO KLINIKE ZA MAKSILOFACIJALNU HIRURGIJU STOMATOLOŠKOG FAKULTETA U BEOGRADU**

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Sažetak; Cilj ove studije jeste prikaz petogodišnjeg iskustva lečenja preloma donje vilice na nasoj Klinici. Donja vilica je usled svoga položaja kao i oblika jedna od najčešće povređivanih kostiju lica i vilica. Različiti obrasci povreda donje vilice koji se mogu uočiti među različitim populacijama se objašnjavaju specifičnim ekonomskim i društvenim faktorima kao i šablonima ponašanja. Retrospektivnom studijom smo obradili medicinsku dokumentaciju pacijenata koji su primljeni i lečeni na Klinici za maksilofacijalnu hirurgiju Stomatološkog fakulteta Univerziteta u Beogradu u periodu od jula 2017.do jula 2022.god. Istrazivani su sledeci parametri: pol i godine pacijenata, okolnosti povređivanja, broj i lokalizacije preloma, pridružene povrede, način lečenja preloma kao i ishode lečenja. Rezultati studije su pokazali da je prelom donje vilice bio prisutan kod ukupno 283 pacijenata, od kojih je je 244 muškaraca (86.3%) i 39 žena (13.7%). Najveći broj preloma zabeležen je u starosnoj grupi 19-45 godina Napad /tuča je detektovan kao najčešća okolnost povređivanja (54,0%), iza koje je pad (25,0%), zatim saobraćajni udes (7.3%), sportska aktivnost (6.5%) i ostale okolnosti (3.2%). Pacijenata sa jednostrukim prelomom je bilo 36.3% , sa dvostrukim 55.6%, trostrukim 7.3% i četvostrukim 0.8%. Od ukupnog broja preloma, 367 preloma (72.3%) je tretirano hirurski. Konzervativni pristup lečenja je korišćen kod 117 (23.0%) pacijenata, dok kod 25 (4.9%) pacijenata nije preduzeta nijedna od mera lečenja. Komplikacije preloma su zabeležene kod 66 pacijenata (27.7%) . Rezultati obradjenih podataka su u skladu sa postojećom aktuelnom literaturom i potvrđuju značaj društvenih faktora i šablona ponašanja u epidemiologiji preloma donje vilice. Rezultati mogu biti od značaja u izradi potencijalnih preventivnih mera kroz delatnosti različitih nivoa zdravstvene zaštite, u evaluaciji i izboru optimalnih metoda lečenja kao i aktivnosti u cilju smanjenja učestalosti komplikacija.

## **3. DIFFERENCIJALNO DIJAGNOSTIČKI ASPEKTI TUMORA PAROTIDNE I PAROTIDOMASETERIČNE REGIJE - PROSPEKTIVNO-RETROSPEKTIVNA STUDIJA (2015-2022)**

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Uvod: Tumori parotidne i parotido-maseterične regije su u najvećem broju slučajeva benigne prirode i obično su porekla parotidne pljuvačne žlezde. Metastatski tumori i lezije slične tumorima imaju kliničku prezentaciju u ovim regijama koja često pokazuje veliki stepen aličnosti u ranim fazama evolucije bolesti.

Cilj: Cilj ovog rada je da se prikažu tip i vrsta različitih tumorskih promena parotidne i parotido-maseterične regije, u periodu januar 2015- 2022. godine. Materijal i metode: Prospektivno i retrospektivno smo analizirali istorije bolesti 191 pacijenata sa dijagnozama tumorskih promena parotidne, parotido-maseterične i retromandibularne regije, satrosne dobi od 27 do 84 godina. Svi pacijenti su bili potvrđeni medicinskom intervju (anamneza) i kliničkom pregledu na Odeljenju za Maksilofacijalnu hirurgiju, Kliničko-Bolničkog Centra "Zemun" u Zemunu, Srbija. Ultrasonografija vrata je sprovedena kod svakog od 191 pacijenata. Dopunska imidžing dijagnostika (MDCT sa IVK, MR) je sprovedena kod 74 pacijenata, kod kojih su su klinički nalaz i inicijalna imidžing dijagnostika bili nedovoljni. Svi pacijenti kod kojih je primarno ishodište bolesti uspostavljeno na osnovu kliničkog pregleda i imidžing dijagnostike primarno su lečeni hirurški (131). U preostalim slučajevima (48) je nakon sprovedene biopsije na osnovu Konzilijarne odluke sprovedeno hirurško lečenje ili su pacijenti Konzilijarno upućeni na druge modalitete lečenja (12).

Rezultati: U periodu od januara 2015 do januara 2022, ispitano je 123 muškaraca i 68 žena, starosne dobi od 27 do 84 godina. Prosečna starosna dob bila je 56.80 ( muškarci 65 %, žene 35% ). Detektovali smo 19 maligna tumora parotidne regije (9%), 126 benignih neoplazmi parotidne regije (65%), 22 netumorske lezije parotidne regije (11%), kao i 8 metastatskih tumora porekla van parotidne regije (4%). U retromandibularnoj regiji detektovali smo 10 benignih (5%) i 3 maligna tumora (1%). U parotido-maseteričnoj regiji detektovali smo 2 benigna (1%) i 1 maligni tumor (%). Učestalost malignih tumora bila je sledeća: 23 karcinoma pljuvačne žlezde (Adenokarcinomi 16, karcinomi aciničnih ćelija 2, adenoidni cistični karcinom 4), limfom 4 (Hočkin 3 , Non-Hočkin 1), metastaza malignog melanoma 2, metastaza skvamocelularnog karcinoma tonzile 6, maligni onkocitom 1. Distribucija benignih neoplazmi bila je sledeća: adenom pljuvačne žlezde 91 (Pleomorfni adenom 78, adenom bazalnih ćelija 13), Warthin tumor 46, onkocitom 1. Frekvencije distribucija ne-neoplastičnih lezija bile su sledeće: Cistične promene parotidnog tkiva 10, reaktivni limfni čvor 4, hronični sijaloadenitis 7, absces 1.

Zaključak: Benigni tumori koji nastaju iz tkiva parotidnih pljuvačnih žlezda j dalje ostaju najveći deo svih tumora i tumorskih promena parotidne i parotido-maseterične regije. Neretko, pored malignih tumora primarnog porekla iz velikih pljuvačnih žlezda, u partodinoj i parotid-maseteričnoj regiji mogu se dijagnostifikovati metastatski tumori i limfproliferavna oboljenja Operativni zahvati (hirurško lečenje) i dalje ostaju prvi izbor lečenja tunora perotidne i parotido-maseterične regije.

Ključne reči: Tumori parotidne regije, tunori parotido-maseterične regije, tunori retromandibularne regije, parotidna pljuvačna žleza.

#### **4. RIZIKO FAKTORI I POJAVA ORALNOG KARCINOMA ZA VRIJEME COVID 19 PANDEMIJE**

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Pandemija sa Covid 19 infekcijom je značajno narušila oralno zdravlje. U ovoj prospektivno-retrospektivnoj studiji vršeno je poređenje učestalosti oralnih karcinoma I faktora rizika za njihov nastanak za period prije I nakon nastanka pandemije virusom SARS CoV 2.



Tokom pandemije, osim rjeđe posjete ljekaru usljed straha od ove infekcije, primijećeno je i povećanje određenih faktora rizika za nastanak oralnog karcinoma. Za vrijeme pandemije postoji povećana upotreba duvana i alkohola, loša oralna higijena.

Strah od infekcije Covid 19 virusom, kao i slabija dostupnost ljekara primarne zdravstvene zaštite, dovela je do toga da se pacijenti kasno javljaju ljekaru, odnosno javljaju se u odmakloj fazi bolesti kada je karcinom značajno porastao, češće sa metastazama na vratu (preko 50% pacijenata sa karcinomom jezika i poda usta i 35% pacijenata sa karcinomom usne) nego u periodu prije pandemije.

Period pandemije sa virusom Covid 19 je povezan sa povećanom učestalošću faktora rizika za nastanak oralnog karcinoma, kao i težom kliničkom slikom, što utiče na izbor liječenja, pa i krajnji ishod liječenja.

Ključne riječi: oralni karcinom, Covid 19, faktori rizika

## **5. INFILTRATIVNI DUKTALNI KARCINOM PAROTIDNE ŽLIJEZDE- PRIKAZ SLUČAJA**

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Duktalni karcinom parotidne žlijezde je agresivni, veoma rijedak tumor, koji čini svega 1-3% svih malignih tumora pljuvačnih žlijezda.

Prikazujemo slučaj pacijentkinje sa infiltrativnim duktalnim karcinomom desne parotidne žlijezde. Naime, radi se o osobi ženskog pola staroj 45 godina, koja se javila na pregled zbog izraštaja u desnoj parotidnoj žlijezdi. Nakon preoperativne pripreme učinjen je operativni zahvat. Patohistološka analiza je pokazala da se radi o rijetkom infiltrativnom duktalnom karcinomu visokog gradusa, sa HER2 pozitivnim receptorom (HER2+). Imunohistohemijski tumorske ćelije su bile: CK+,CK7+,p16-, A100-, p40-, SMA-, Calponin-, SSTR2-, TTF1-, CD56+, NSE+, GATA+, AR-, MGB-, INSM1-, CDX2-, CK20-, EBV-, CD56+, EMA+, p40-, CEA-,Gata3 fokalno +,Ki 67 15%, S100 -, p63 -, CK5/6 -, ChromograninA -, Synaptophysin +/-.

Liječenje infiltrativnog duktalnog karcinoma parotidne žlijezde zahtijeva radikalno hirurško liječenje, uz eventualnu radioterapiju. Kod ovih tumora sa HER2 pozitivnim receptorom terapija izbora bi trebala da bude ciljana terapija.

Ključne riječi: HER2, parotidna žlijezda, duktalni karcinom

## **6. PEDESET GODINA KLINIKE ZA MAKSILOFACIJALNU HIRURGIJU VOJNOMEDICINSKE AKADEMIJE U BEOGRADU**

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Počeci primene hirurških metoda lečenja kojima se danas bavi maksilofacijalna hirurgija na našem tlu vezani su za 1912, odnosno Prvi balkanski rat, kada je dr Atanasije Pulja postao načelnik Odeljenja za prelome vilica koje je sve vreme zbrinjavalo ratne povrede primenom intermaksilarne imobilizacije. 1930. formirana je Zubna stanica u Centralnoj vojnoj bolnici bivše jugoslovenske armije, koja je 1934. prerasla u Zubno odeljenje kome je prvi načelnik bio dr Milivoje Petrović, od tada sve do 1947. načelnik je bio general dr Vaclav Jelinek. Nakon oslobođenja Beograda 1944. Zubno odeljenje je ponovo formirano u sklopu Centralne vojne bolnice, radi lečenja ratnih povreda lica do 1947. kada je major dr Alojzije Kuralt postao je načelnik Odseka za maksilofacijalnu hirurgiju, gde su se uglavnom bavili odontohirurgijom.

1950. godine formirana je Vojnomedicinska akademija u okviru koje i Klinika za oboljenja usta, zuba i vilica koja je imala Odeljenje za maksilofacijalnu hirurgiju i prvi mu je načelnik bio dr Alfred Štajner, prvi specijalista maksilofacijalne hirurgije u bivšoj JNA, kada se Odeljenje približilo nivou nekih naprednih centara u centralnoj Evropi. Zajedno s prof. Štajnerom, dr Grčić i dr Tavčar su bili nosioci naučnog i stručnog rada i razvoja Odeljenja, kao i mnogi drugi lekari JNA i civilni lekari, tako da se u to vreme Odeljenje smatralo jednim od najvažnijih obrazovnih centara u Jugoslaviji za obuku specijalista maksilofacijalne hirurgije. Učinjen je napor da se zahtev specijalističkog ispita maksilofacijalne hirurgije dovede do nivoa nezavisne i specifične hirurške grane.

1965. osnovano je Udruženje plastičnih i maksilofacijalnih hirurga Jugoslavije.

1972. godine formirana je Klinika za maksilofacijalnu hirurgiju VMA. Načelnik je bio akademik general prof. dr Antonije Škokljev, što je bilo od presudnog značaja za promociju Klinike kao moderne i kompetentne visoko specijalizovane hirurške ustanove, koja je postala jedna od vodećih institucija za edukaciju visoko stručnog osoblja, budući da su gotovo svi potonji specijalisti barem deo, a velika većina celokupnu specijalizaciju proveli u Klinici i stekli diplomu Vojnomedicinske akademije.

Preseljenjem u novu, modernu zgradu VMA 1980, Klinika je reorganizovana tako da se sastojala od dva odeljenja: Odeljenja za maksilofacijalnu hirurgiju i Odeljenja za oralnu hirurgiju. Nova organizacija omogućila je dalji porast broja pacijenata iako je broj postelja ostao isti: broj hospitalizovanih pacijenata se utrostručio, a broj ambulantnih povećao za sedamnaest puta. Isti odnos važi i za broj hospitalno i ambulantno operisanih pacijenata.

U periodu od 1986-1998. načelnik Klinike bio je prof. dr Miomir Cvetinović. Započete napore u usavršavanju i proširivanju obima hirurškog rada na kranio maksilofacijalnu hirurgiju osujetila su ratna dejstva tokom raspada države, kad je u Klinici lečeno 95% ranjenika upućenih tokom godina sa svih ratom zahvaćenih područja s obimnim i teškim maksilofacijalnim ratnim povredama praćenih defektima.

Pukovnik prof. dr Nebojša Jović bio je načelnik Klinike za maksilofacijalnu hirurgiju u periodu od 1998-2012. godine tokom kog je nastavljen trend povećavanja obima stručnog rada, edukacije

brojnih specijalizanata, međukliničke saradnje u državama u okruženju, prisustva na domaćim i međunarodnim skupovima.

Danas, 2022. godine, na pedesetgodišnjicu postojanja Klinike za maksilofacijalnu hirurgiju VMA, kada se istovremeno puni i 110 godina od njenih začetaka u vojsci i državi uopšte, načelnik Klinike za maksilofacijalnu hirurgiju VMA je vojni službenik prof. dr Srboljub Stošić, koji od 2013. godine predvodi i dalje modernu, visoko profesionalnu kliničku instituciju u kojoj se primenjuju sve danas poznate maksilofacijalne hirurške metode lečenja. Klinika je posebno uvažena i prepoznatljiva po multidisciplinarnom pristupu u lečenju bolesnika s politraumom, onkoloških bolesnika svim raspoloživim vidovima specifičnog antitumorskog lečenja, bolesnika s deformitetima, kao i po hirurškom i dijagnostičko-terapijskom radiološkom pristupu lečenja kompleksnih vaskularnih malformacija glave i vrata.

Takođe se intenzivno nastavlja s edukacijom specijalizanata, među kojima se uz civile, sada ponovo nalaze i vojni lekari, što je u ovom trenutku od velikog značaja za podmlađivanje Klinike i kolegijuma maksilofacijalnih hirurga koji sada čine načelnik Klinike prof. dr Srboljub Stošić, prof. dr Ružica Kozomara, načelnik Sektora za lečenje VMA dr sc. Miroslav Bročić, dr sc. Saša Jović, mr. sc. Milka Gardašević, načelnik Kabineta dr Slobodanka Vukelić-Marković, dr Marko Brkić i dr Uroš Marjanović koji rutinski nastoje da svakodnevni rad stalno unapređuju u skladu s doktrinom savremene hirurške prakse, a unutar same Akademije ovaj tim se smatra uzornim u pogledu stručnosti, kolegijalnosti i pouzdanosti.

## **7. UKLANJANJE DENTALNOG IMPLANTANTA IZ MAXILARNOG SINUSA FEES TEHNIKOM**

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Pacijent je od strane stomatologa upućen maksilofacijalnom hirurgu. Anamnestički se dobije podatak da je pre dve godine imao ugradnju dentalnih implantata ali usled Covid-19 pandemije nije završio ceo postupak. Posle dve godine javio se stomatologu, ali je tom radiološkom dijagnostikom uočeno da se implant nalazi u maksilarnom sinusu. Po prijemu u Kliniku za maksilofacijalnu hirurgiju učinjena je CT dijagnostika. Pacijent je operisan u opštoj anesteziji primenom funkcionalne nazalne endoskopije (FESS). Intervencija je protekla bez komplikacija.

Pandemija Covid-19 doprinela je odlaganju velikog broja planiranih operacija. U našem slučaju desilo se da implantat nije oseoinegrisan već je dislokovan u maksilarni sinus. Koristeći FESS pristup uklonili smo strano telo iz maksilarnog sinusa minimalno traumatskom hirurzijom. Pošto je pod sinusa bez defekta može se relativno brzo nastaviti sa stomatološkim tretmanom.

## **8. A CASE SERIES OF POST COVID - 19 RHINOCEREBRAL FORM OF MUCORMYCOSIS IN SERBIA - SURGICAL TREATMENT**

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**Abstract:** Mucormycosis is rare but serious infection caused by a group of fungi called mucormycetes. It is a life threatening, highly aggressive angioinvasive infection, and it mainly affects people who are immunocompromised. During 2021 and 2022, at the Maxillofacial Surgery Clinic of Dental Medical School in Belgrade, Serbia (the „Clinic“), the medical team (the „Team“) reported five patients, with rinoorbitocerebral form of mucormycosis. All five of these patients had recovered from SARS CoV2 virus infection prior to the detection of mucormycosis at the Clinic. During the medical treatment of the SARS CoV2 virus, all five patients had received treatment at COVID-19 specialized hospital and all of them spend a considerable amount of time under treatment (on average 2 months). The Team treated these patients by following the guidelines for Screening diagnosis and management of mucormycosis at the time of Covid-19 pandemic *Indian council of medical research, published in May 2021*. These guidelines include several intervention phase with colleagues from other clinics assisting in other phases of treatment/management of mucormycosis. This case report presents the Team’s work with the five patients diagnosed with mucormycosis, and a special focus is dedicated to two patients that, due to their condition, received surgical intervention as part of their anti-mucormycetes treatment.

## **9. CONDYLAR FRACTURES, IMPORTANCE OF PRECISE CLASSIFICATION, SURGICAL APPROACH AND USE OF SPECIAL THREE-DIMENSIONAL CONDYLE PLATES**

dr sc med Saša Jović, prof dr Srboľjub Stošić, dr sc med Miroslav Bročić, mr dr Milka Gardašević, dr Marko Brkić, dr Uroš Marjanović  
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**Objectives:** Condylar process fractures are among the most common mandibular fractures and accounts between 20 and 50%. Regardless their frequency, they continue to be discussed controversially. Nowadays, with increased understanding of fracture management and new technologies, open reduction and internal fixation (ORIF) becomes many surgeons’ preferred choice for the treatment.

**Methods:** We retrospectively reviewed 40 patients. All patients were admitted to the Clinic for Maxillofacial surgery at the Military Medical Academy in Belgrade because of unilateral or bilateral neck or base condylar fractures. Patients were treated with ORIF and use of special deltoid or trapezoid three-dimensional condyle plates. We used high submandibular, high and low preauricular and anteroparotid transmasseteric approach.

**Results:** All patients successfully recovered from the surgery. About 10% of patients had transient facial nerve palsy which was resolved after few weeks, Mouth opening was good in all patients,

occlusion was like before fracture and there was no significant long-term pain in temporomandibular joint or discomfort and functional impairment.

Conclusions: ORIF is method of first choice in most condylar neck and base fractures in adults. Use of of special deltoid or trapezoid three-dimensional condyle plates ensures primary stability in neck and base condylar fractures with use only one plate instead of two plates and four screws instead of eight screws. Preferable approach depends on fracture location and it's advisable for surgeons two be familiar with at least three different approaches.

## **10. TUMORI INFRA TEMPORALNE REGIJE- ZNAČAJ PREOPERATIVNOG PLANIRANJA**

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Uvod: Infratemporalna regija zbog svog sadržaja i odnosa sa susednim regijama ima veliki klinički značaj. Primarni tumori ove regije, kako benigni tako i maligni, veoma su retki, ali zahtevaju hirurški tretman koji je uslovljen veličinom i lokalizacijom tumora.

Matreijal i metode: Retrospektivnom analizom istorija bolesti u periodu od 01.01.2000.-31.12.2021. utvrđeno je da je 41 bolesnik sa dijagnozom tumora infratemporalne regije lečen na Klinici za maksilofacijalnu hirurgiju Kliničkog centra Vojvodine, načinjena je analiza anamnestičkih podataka, korištenih dijagnostičkih procedura i operativnih pristupa koji su korišteni u lečenju istih .

Rezultati: U periodu od 01.01.2022. do 31.12.2021. 41 bolesnik je primljen sa dijagnozom tumora infratemporalne regije od toga 23 žene i 18 muškaraca. Kod 28 pacijenta utvrđeno je postojanje infekcije infratemporalne regije, kod 4 je opisano postojanje metastatskog tumora u infratemporalnoj regiji kod tri bolesnika je opisan švanom, kod jednog pleomorfni adenom, kod jednog meningeom, kod jednog mukoepidermoidni karcinom, kod jednog sinoviosarkom dok je kod dvoje opisan atipični meningeom. Kod svih pacijenata je preoperativno rađena CT dijagnostika, ili MRI te je na osnovu nalaza planirano operativno lečenje različitim pristupom: kod infekcija infratemporalne regije rađena je incizija dok su tumori rađeni transantralnom maksilektomijom, pristupom po Weber-Fergusson-u ili transoralnim pristupom.

Zaključak: Za uspešno hirurško lečenje tumora infratemporalne jame, osim precizne dijagnostike, veoma je važan izbor odgovarajućeg hirurškog pristupa koji treba da obezbedi kompletno uklanjanje tumora uz očuvanje sadržaja infratemporalne jame.

Ključne reči: infratemporalna jama, kompjuterizovana tomografija, magnetna rezonanca, švanom, meningeom,

## **11. ADENOID CYSTIC CARCINOMA OF SINUS: A CASE REPORT OF A MALIGNANCY WITH AN UNCOMMON LOCATION AND 3D-PRINTED CUSTOM MADE IMPLANTS AS A CHOICE FOR RECONSTRUCTION**

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**Introduction:** Adenoid cystic carcinoma (ACC) is a rare tumour of the salivary glands. It usually concerns submandibular, minor salivary, and mucinous glands. ACC located in nose and paranasal sinuses consists a slowly growing, aggressive malignant tumour with a predisposition for perineural invasion, a relatively low probability of regional lymph node metastases and a high likelihood of haematogenous dissemination. This study highlights the rarity of this entity and the opportunities for reconstruction offered by new technologies.

**Presentation of case:** A 77 year old male with medical history of excised ACC from the left buccal mucosa, presented with a painful left cheek swelling for several months. After a contrast-enhanced computed tomography (CT) of facial bones and a biopsy which showed adenoid cystic carcinoma, the mass, including the left orbital floor and the left eye ball, was surgically excised. After a period of recovery, the patient was submitted to reconstruction surgery. Post surgery CT scan was used to design custom made 3D titanium implants in order to reconstruct the left orbit and sinus.

**Discussion:** Paranasal ACC is an uncommon entity. Its excision leads to facial deformities with effects to patients' quality of life and emotional health.

**Conclusion:** ACC should be included in differential diagnosis when examining a sinus mass. New technologies such as 3D-Printing offer an excellent opportunity for facial reconstruction improving patients' life.

## **12. FLAP PREFABRICATION STRATEGY FOR CRITICAL-SIZED MANDIBLE DEFECTS RECONSTRUCTION**

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**Introduction:** Reconstruction of the critical sized mandible defects remains a tremendous challenge for maxillofacial surgeons worldwide. Despite the variety of surgical techniques, current clinical strategies for mandible defects repair demonstrate significant limitations and drawbacks, including donor-site morbidity, poor anatomical match of the graft, insufficient bone volume, bone graft resorption and rejection. Bone flap prefabrication has emerged as a novel approach to extensive bone defects reconstruction. The in vivo bioreactor principle (IVB) is an exceptionally promising concept for the in vivo bone tissue regeneration and combines prefabrication and axial

vascularization strategies. Multiple experimental studies on in vivo bone tissue engineering strategies demonstrate the efficacy of this approach to bone defects reconstruction.

**Materials and methods:** Five patients with extensive post-resection mandible defects underwent 14 surgical procedures for the mandible reconstruction using prefabricated and axially vascularized allogenic bone grafts. Prior clinical studies the experimental animal models for bone flap prefabrication and axial vascularization have been used.

**Results:** All 5 prefabricated bone grafts demonstrated viability and excellent anatomical match, however achieving good clinical results required multiple and complex surgical procedures. Complications included bleeding (1), bone flap exposure (1) and local skin necrosis (1).

**Conclusion:** Despite encouraging early results of the in vivo bioreactor principle for mandible reconstruction, the routine clinical application of this approach requires further investigation for overcoming some significant limitations and challenges.

### **13. BASAL CELL ADENOCARCINOMA OF THE PAROTID GLAND WITH MULTIPLE DISTANT METASTASES: A CASE REPORT**

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**Introduction:** Basal cell adenocarcinoma (BCAC) is a rare entity that was first defined as a malignant salivary gland tumor in 1991. BCAC accounts for less than 2% of salivary gland tumors involving major salivary glands, predominantly parotid gland in more than 90% of cases.

**Case report:** We present a female patient, 58 years, referred to Clinic for maxillofacial surgery Clinical center of Vojvodina due to swelling in the left parotid region and complete peripheral facial nerve palsy. After clinical and radiological examination a left radical parotidectomy was performed. Pathohistological examination revealed BCAC, predominantly solid and trabecular pattern. Lymphovascular and perineural invasion were present. The patient was treated with radiotherapy on which she responded excellently and was disease free for three years. However one year after the diagnosis MR screening revealed multiple liver metastases and metastases to the lumbar vertebra. Chest CT revealed solid metastases to the lungs and fifth rib on the left side. Due to progression of the disease patient died 18 months after the diagnosis.

**Discussion:** In general BCAC is recognized as a low grade tumor with a favorable prognosis, while long-term follow-up is needed because of occasional recurrence. Distant metastases of the parotid BCAC are very rare and found in less than 10% of cases. The therapy of choice is parotidectomy with preservation of the facial nerve. Neck dissection has to be added in cases with cervical

metastases. Radiation is advisable in patients with advanced local tumors, perineural infiltration, positive or close surgical margins and recurrent disease.

Key words: basal cell adenocarcinoma, parotid gland malignancy, distant metastases, facial nerve palsy

#### **14. PROGNOSTIC FACTORS OF DESCENDING NECROTIZING MEDIASTITIS DEVELOPMENT IN DEEP NECK INFECTIONS – A RETROSPECTIVE STUDY**

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**Objectives:** Descending necrotizing mediastinitis is the most serious complication of deep neck infections. The objective of this study was to find out main prognostic factors of descending necrotizing mediastinitis (DNM) development in deep space neck infections (DSNI).

**Methods:** The study enrolled all medical data from patients who were admitted to Emergency Center of Vojvodina with the diagnosis of DSNI with DNM or without DNM either as the primary diagnosis or with discharged diagnosis after surgical treatment during 7 years period.

**Results:** After final analysis total of 141 charts were randomized for statistical analysis, 124 charts in DSNI and 17 DSNI and DNM groups. The main cause of infections in both groups was odontogenic. On multivariate regression analysis of collected data infection of retropharyngeal, pretracheal and carotid space, C-reactive protein, and procalcitonin values were statistically significant predictors for development of DNM.

**Conclusion:** Treatment and diagnosis of DNM requires multidisciplinary approach, with prompt clinical and radiological examinations including computer tomography of deep neck spaces, empirical broad spectrum antibiotic therapy and radical surgical approach and debridement. DSNI and especially infection of retropharyngeal, carotid, and pretracheal spaces are the most sensitive predictors for development of DNM in DSNI.

**Clinical relevance:** If the infection reaches from deep neck spaces to retropharyngeal, pretracheal and carotid space it is most likely that DNM will occur.

**Key words:** Odontogenic infections, Deep space neck infection, Descending necrotizing mediastinitis, Risk factor, Pharyngeal infection



## 15. INTRAOSSEOUS SCHWANNOMA OF THE MANDIBLE

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Schwannomas are slow growing benign tumors, origin from Schwann cells. These tumors most often occur in the soft tissues of the head and neck, as well as on the flexor surface of the upper and lower extremities. Intraosseous schwannomas account for less than 1% of benign bone tumors. The most common localization is the lower jaw.

The case of a 33-year-old patient, who came for an examination referred by a dentist because of the incidental finding on the orthopantomographic image, which was made due to a toothache in the upper jaw, is presented. The patient did not have any problems or swelling in the lower jaw, the intraoral finding was normal, the mucosa of the usual color, without signs of inflammation. There was no movement of the adjacent teeth or resorption of the tooth roots. The lower edge of the lower jaw was the usual radiographic view. Biopsy was performed first and the pathohistological finding showed Schwannoma. The operation was then performed under general endotracheal anesthesia. Nerve resection was performed at the entrance to the mandibular canal on the inner side of the mandibular ramus, followed by nerve resection at the mental foramen. The evolution of schwannomas varies from a few months to several years. It can last for several years asymptotically, swelling is the most common symptom, although pain and paresthesia can be present in 50% of cases. Since Schwannomas are resistant to radiation therapy, the therapy of choice is complete surgical enucleation with periodic postoperative monitoring.  
Key words: schwannoma, mandible tumor, inferior alveolar nerve

## 16. „MAXILLARY SWING“ KAO PRISTUP HIRURŠKOM LEČENJU TUMORA U NAZOFARINKSU

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Uvod: Nosni sprat ili nazofarinks (NF) je gornji deo koji gradi anatomsku i funkcionalnu celinu sa nosnom dupljom postavljenom ispred njega, a njegov gornji zid odgovara bazi lobanje. NF je hirurški teško dostupan zbog njegove složene anatomije i lokalizacije. U literaturi su opisane brojne otvorene i endoskopske procedure hirurškog lečenja NF tumora. „Maxillary swing“ (MS) je varijacija transmaksilarnog pristupa, opisana pre više od tri decenije. Nudi širok pristup NF, pterigopalatinskoj jami i pterigomaksilarnoj fisuri, a istovremeno čuva funkciju mekog nepca koja je od vitalnog značaja za govor i gutanje.

Pacijenti i metode: U radu su prikazana tri pacijenta operisana MS pristupom u Klinici za maksilofacijalnu hirurgiju VMA. Pacijenti su bili u u adolescentnom dobu sa višemesečnim simptomima otežanog disanja i povremene sekrecije iz nosa. Kod svih je preoperativnim CT pregledima otkriven ekstenzivni, lokalno uznapredovali tumor lokalizovan u NF, a patohistološki je kod dva pacijenta potvrđen juvenilni angiofibromi, a kod jednog hondroidni hordrom. Preoperativno je urađena embolizacija kod pacijenata sa angiofibromom. Kod sva tri pacijenta je

učinjena ekstirpacija/resekcija tumora nakon “Weber Fergusson Dieffenbach” incizije na koži lica i MS pristupa.

**Rezultati:** U višegodišnjem periodu praćenja nije potvrđena pojava recidiva. Jedan pacijent je imao oronazalnu fistulu. Nijedan pacijent nije imao postoperativni poremećaj okluzije.

**Zaključak:** MS je odličan pristup koji obezbeđuje jasnu vizuelizaciju, bezbednu i uspešnu ekstirpaciju velikih tumora u nazofarinksu i kao takav je pre 4 godine uveden kao dominantan način pristupanja navedenim tumorima u Klinici za maksilofacijalnu hirurgiju VMA. Postoperativne komplikacije ovim pristupom su veoma retke.

## **17. VELIKI JUVENILNI NAZOFARINGEALNI ANGIOFIBROM – PRIKAZ SLUČAJA**

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Juvenilni nazofaringealni angiofibrom (JNA) je retka, benigna, vaskularna neoplazma koja čini manje od 0,5% svih tumora glave i vrata. Uprkos tome, predstavlja lokalno agresivan vaskularni tumor sa visokim stepenom recidiviranja, ako se ne leči adekvatnom hirurškom tehnikom.

JNA je podeljen, prema Andrevu na četiri stadijuma. Stadijum I – tumor ograničen na nosnu šupljinu i nazofarinks, stadijum II – proširen u pterigopalatinsku jamu, maksilarne, sfenoidne, etmoidne sinuse, stadijum IIIa – proširen u orbitu ili infratemporalnu jamu bez intrakranijalnog širenja, stadijum IIIb – stadijum IIIa sa malim ekstraduralnim (paraselarnim) proširenjem, stadijum IVa - velike ekstraduralne intrakranijalne ili intraduralne ekstenzije, stadijum IVb - zahvaćenost kavernoznog sinusa, hipofize ili optičke hijazme.

U ovom radu prikazan je šesnaestogodišnji pacijent sa JNA. Prve simptome u vidu otežanog disanja na nos i povremene sekrecije iz nosa primetio godinu dana ranije. Nakon magnetne rezonance učinjena je endoskopska biopsija promene i patohistološka verifikacija. Embolizacija tumora sprovedena je 24 sata pre operacije. Učinjena je ekscizija tumora nakon “Weber Ferguson” incizije i pristupa kroz “maxillary swing”. Za osteosintezu su korišćene mini pločice. Neposredni postoperativni tok protekao uredno uz primenu antibiotske, antidolorozne i kortikosteroidne terapije. Tokom jednogodišnjeg perioda praćenja, nije potvrđena pojava recidiva.

**Zaključak:** Adekvatan pristup praćen iskusnom hirurškom tehnikom je od suštinskog značaja za vizuelizaciju, bezbednu i potpunu eksciziju tumora, što rezultira niskom stopom recidiva.

## **18. FIBROUS DYSPLASIA OF LEFT MAXILLARY BONE**

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**Introduction:** A fibrous dysplasia (FD) is a rare bone disorder, characterized by the abnormal development of new fibrous connective tissue in place of healthy bone. It typically develops throughout the first or second decade of life, progresses slowly, and affects women twice as commonly as men. It can involve one (monostotic) or, less typically, two or more bones (polyostotic), and in jaw bones it frequently affects the maxilla more than the mandible. Following puberty, FD usually stabilises or slows. Surgery is the main form of treatment for craniofacial FD. Conservative shaving is the most beneficial and reasonable treatment when the mandible and maxillary bone are affected. However, when conservative shaving has been utilized, recurrence and the need for further surgery are not unusual. More aggressive and extensive surgery is avoided during puberty (period of growth).

**Case report:** A 37-year-old woman who had previously been diagnosed with fibrous dysplasia and undergone surgery in 2007 noticed a similar development in the left maxillary bone region in 2015, and she subsequently underwent two biopsies in another facility. Following a clinical evaluation and analysis of the patient's CT scan where it was recognized that FD in this case is capsulated and clearly demarked from surrounding bone, it was determined that for correction of deformity surgery would be performed: Subtotal resection of the left maxilla with tumor extirpation of the nasal cavity, ethmoid sinus, maxillary fossa and infratemporal fossa. At six months follow up, CT and clinical exam showed no signs of a local recurrence.

**Conclusion:** Usually small lesions might just need a biopsy to rule out other lesions. The magnitude of the malformation and increased pressure on the eyeball in this case necessitated more extensive surgery. State of the dysplasia in this case, which is rare to see, that dysplastic growth is so clearly demarked from rest of the bone would allow us to completely extirpate it with minimal resection of the bone.

## **19. INOPERABLE TUMOR WITH INTRACRANIAL PROPAGATION: A CASE REPORT**

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**Introduction:** Neck tumors are a relatively common occurrence in clinical practice. The first goal is to determine whether the mass is malignant or benign. Malignant tumors are more common in adult smokers over the age of 40. There is approximately 4% of neck tumor incidence in Europe and men are affected more than women. Contrast-enhanced computed tomography is the initial diagnostic procedure in adults. Computed tomography angiography is recommended over magnetic resonance angiography for the evaluation of pulsatile neck masses. If imaging excludes the involvement of underlying vital structures, a fine-needle aspiration biopsy can be performed. One of the benign tumors are paragangliomas which are presented as uncommon neck swelling, usually asymptomatic or associated with hypertension, flushing and hoarseness.

**Case report:** A 59-year-old female patient was admitted to our clinic for the treatment of a neck tumor, that she had for 40 years. In the last 5 years hoarseness appeared occasionally, and in the last 2 years constantly. An ultrasound and a neck scanner were performed several times through the years, where it was observed that the tumor grew over time, but it was not possible to clearly define the relationship with the vascular structures. No biopsy was done. On the latest multi-slice computed tomography of the neck, it was observed that the tumor is spreading intracranially. Angiography revealed tumor nutrition from multiple branches of the left carotid artery, the left vertebral artery and the left thyrocervical tree, which makes biopsy and further treatment impossible. According to all clinical and radiographic findings, we suspect that it is a paraganglioma.

**Discussion:** The frequency of head and neck tumors is higher in patients older than 40 years. Studies show that the head and neck are the primary localization for the appearance of tumors, more common in children than in adults. Paraganglioma is a rare presentation and the treatment, usually, is surgical, except for the tumors with intensive intracranial propagation.

**Conclusion:** Timely and adequate approach to diagnosis is important for minimal invasive and effective treatment.

## **20. TUBERCULOSIS OF THE SKIN OF THE MAXILLOFACIAL REGION – A CASE REPORT**

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**Introduction:** Tuberculosis (TB) is a chronic granulomatous disease caused by the pathogen *Mycobacterium tuberculosis*. Though the disease is predominantly pulmonary (~75%), the extrapulmonary manifestations are not so unusual (~25%). Maxillofacial (MF) involvement in TB is uncommon. Because clinical findings vary, it must be promptly considered in the differential diagnosis.

**Aim:** The aim of the paper was to emphasize the importance of recognizing this rare yet potentially fatal form of the disease. The goal was to present case report of MF TB in a 51-year-old female.

**Case presentation:** The paper includes case report of the cutaneous manifestation of the extrapulmonary TB. The patient was referred in 2022 to the School of Dental Medicine, University of Belgrade, with persistent swelling presented for more than 5 months within induration and nonhomogeneous erythema of the buccal region. Regional lymphadenopathy of the submandibular and cervical lymph nodes persisted for 2 months. The diagnosis was confirmed by pathohistological examination based on incisional biopsy, clinical findings and target laboratory investigation - QuantiFERON test.

**Conclusion:** Only a minority of TB cases exhibit facial skin involvement, mainly with atypical clinical presentation, whilst cervical lymphadenitis is the most common manifestation of extrapulmonary TB. Although MF TB is very rare, MF practitioners should be aware of it and always consider it in the differential diagnosis of MF skin lesions.

**Key words:** tuberculosis, maxillofacial region, rare onset.

## **21. AMELOBLASTIČNI FIBROSARKOM MAKSILE U DEČJEM UZRASTU - PRIKAZ SLUČAJA**

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**Uvod:** ameloblastični fibrosarkom (AFS) je maligni odontogeni tumor karakteristično sačinjen od benignog epitela i maligne mezenhimalne komponente. Najčešći simptomi su bol i otok. Iako retko metastaziraju, ovi tumori imaju veliku stopu recidiva. Ameloblastični fibrom (AF) je glavna diferencijalna dijagnoza AFS. Kod AFS mezenhimalna komponenta prezentuje se velikim brojem ćelija, jedarnim polimorfizmom, hiperhromatizmom i srednjim do velikim brojem mitozama. Kod pacijenata obolelih od AFS je neophodna široka ekscizija, što smanjuje rizik za nastanak recidiva.

**Prikaz slučaja:** pacijentkinja starosti 12 godinaje imala tegobe u vidu otoka i bola u predelu leve srednje trećine lica u trajanju od 5 meseci. U drugoj ustanovi je učinjena biopsija promene čiji je patohistološki nalaz odgovarao ameloblastomu, dok je nakon revizije preparata nalaz odgovarao ameloblastičnom fibromu, nakon čega je indikovana zračna terapija. Na učinjenom CT pregledu glave: te je zbog mogućnosti adekvatne resekcije dela gornje vilice sa tumorom učinjena levostrana parcijalna resekcija maksile i ekstirpacija tumora. Patohistološki nalaz je ovaj put ukazivao na bifazični tumor: verifikovana je i maligna transformacija ka ameloblastičnom fibrosarkomu. Pacijentkinja potom prikazana na onkološkom konzilijumu koji je indikovao praćenje. Pacijentkinja dolazi na redovne kontrole i nakon 17 meseci od operacije nema lokalnog recidiva.

Diskusija: široka hirurška ekscizija je najpouzdaniji i najznačajniji primarni način lečenja koji značajno smanjuje procenat recidiva. U određenim slučajevima je indikovana primena radioterapije.

Ključne reči: ameloblastični fibrosarkom, ameloblastični fibrom, odontogeni tumor, maligni tumori glave i vrata

## **22. CHRONIC MANDIBULAR OSTEOMYELITIS – CASE REPORT**

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Chronic osteomyelitis is an inflammatory disease of the bone usually caused from a bacterial infection. Chronic osteomyelitis of the mandible is a rare reported condition, but fairly common in comparison to the other facial skeleton bones (up to 87%). It can result from odontogenic infection, postextraction complications, inadequate treatment of trauma, or irradiation to the mandible from surrounding tissue.

We present a case of chronic osteomyelitis as a result of postextraction complications and infection, after extraction of teeth 37 and 38. Patient was hospitalized at Military Medical Academy in Belgrade with an extra oral cutaneous fistula in the left mental region, suppuration, and with signs of intraoral infection. MDCT, scintigraphy and panoramic radiographs were taken, and revealed radiolucent areas, bone destruction and pathologic fracture separating body from symphysis part of mandible on the left side. Patient has been treated with intravenous antibiotic Clindamycin 0.6 g x 3 (due to his allergies to Penicillin and Longaceph) and Efloran 0.5g x 3. Two surgical procedures were performed under general anesthesia, which included excision of fistula, hemimandibulectomy and reconstruction of defect with reconstruction plate and local mucosal flap. Pathohistological finding showed chronic osteomyelitis. Afterward he received multiple treatments in hyperbaric chamber (62 sessions, 60minutes each) and antibiotic treatment was continued. At the 2-month follow-up, patient reported radiological improvement, as well as in all clinical symptoms, and showed no signs of local infection.

Clinical findings in chronic mandibular osteomyelitis can include local pain, swelling, purulent discharge, intraoral and skin fistula, unhealed soft tissue in the oral cavity, pathologic fracture, decreased inferior alveolar nerve sensation and pathohistological finding. Diagnosis is made by a combination of clinical examination, supportive blood testing, and appropriate radiography. Pathogenic organisms are normal oral flora, Staphylococcus aureus, and aerobic gram-negative bacilli. The treatment of chronic osteomyelitis of the mandible usually involves surgery and long-term antibiotics.

Keywords: Chronic osteomyelitis, mandible, infection

## **23. IMPLANTATION IN IRRADIATED BONE FOR ORBITAL PROSTHESIS RETENTION- A CASE PRESENTATION**

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**Introduction :** During the therapy of malignant tumors, radical surgery is necessary, which can be complemented with radiation and polychemotherapy. After tumor resection, radiation therapy is applied to reduce the probability of recidive. Bone that has been irradiated does not have the same qualitative characteristics as intact bone. The negative effect of X-rays on bone tissue, skin and mucose leads to tissue hypoxia and a decrease in the number of cellular elements. In soft tissues, they cause wounds that are difficult to heal and compromise circulation. The success of implant therapy in such tissue depends on several factors: the quality of the bone, blood supply to the bone tissue, as well as the number and preservation of the cellular elements of the bone. Irradiated bone has reduced proliferation of bone marrow, collagen, periosteal and endosteal cells. All this makes osseointegration difficult. A hyperbaric chamber or primary coverage of the implant with a microvascular flap significantly helps osseointegration in irradiated tissue. Some authors advise implantation in irradiated area after a period of 4-6 months after the completion of radiation therapy. Although many studies show good results even after the immediate implantation in the irradiated area, sometimes due to the high dose and frequency of radiation, osseoradionecrosis occurs. The bones around the orbital cavity are the most prone to radiation damage. The effect of radiation dose is expressed as "cumulative radiation effect" CRE. A statistically significant dose of radiation for implant failure is 50 Gy-Gray and more.

**Case presentation:** A 76 year old male was admitted to Clinic for maxillofacial surgery school of dental medicine Belgrade, for orbital defect prosthetic rehabilitation. Previously patient had operative treatment -exenteratio orbitae dg. Neoplasma cutis palpebrae ( Ca planocelulare recidivans) cum propagatio in orbita dexter. He recived radiotherapy in 30 sessions during 6 weeks 5 times a week, with overall dosis of 60 Gy -Gray. After full recovery, patient was admitted for implant therapy and prosthetic rehabilitation. After the frontal bone sites were CT evaluated , two (Ihde Dental, Switzerland) implants were placed (one double disk implant, one triple disk implant) supraorbital lateral. Immediately after placement implants were stable with ISQ of 35 and 41 respectively. Do to osseoradio necrosis implants were compromised therefore hyperbaric chamber ( 20 sessions) and conservative treatment were administrated. After 50 days of followup the double disc implant had to be removed. Triple disc implant regained stability with ISQ 49 after 3 months and 50 after 6 months of followup. Prosthetic rehabilitation was successfully administrated with corrected prosthesis anchorage do to smaller number of retaining implants.

**Conclusion:** implantation in irradiated bone is very challenging but with good therapy plan implant therapy can give satisfactory results.

**Key words:** osseoradio nesrosis, implantology, craniofacial impants

## **24. OSTEOMIJELITIS NAKON UGRADNJE IMPLANTANTA**

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Kinika za MFH KCCG; Dr Ivan Pejaković, Kinika za MFH KCCG

Osteomijelitis nakon ugradnje dentalnog implantanta je rijedak slučaj ( 0,1%). Prikazujem slučaj osteomijelitisa nastalog 13 godina nakon ugradnje dentalnog implantanta u donjoj vilici regiji zuba 44. U radu ćemo prikazati radiografske snimke: OPT kao i CT donje vilice na kojima se prikazuje patološka fraktura mandibule kao i koštani sekvistri u frakturnoj liniji kao posledica osteomijelitisa, takođe prikazujem snimak ekstraoralne i intraoralne fistule. Rezultat navedene komplikacije je da se morala uraditi parcijalna resekcija mandibule u regiji zuba 43- 45.

## **25. ODONTOGENIC PHLEGMON OF FACE AND NECK**

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Introduction: Facial and deep infection of neck are severe infection most commonly caused by odontogenic factors. Phlegmon can progress rapidly from toothache to life-threatening infection in just a few hours.

Case report: A 59 years old male patient came to emergency center of Military Medical Academy with extensive swelling on left side of face and neck, limited mouth opening, mild pain during palpation with preserved normal swallowing and no air pathway obstruction. Only symptom preceding was toothache. Patient has Diabetes mellitus, high blood pressure, and had acute myocardial infarct one year ago. Surgical procedure representing incision in the upper third of the neck on the left side, drainage and lavage and passive drainage application was done right away, after which patient was admissioned to intensive care department. After 13 days, clinical state of patient was improved but necrectomy of wound was needed. Ten days after second surgery patient was discharged from hospital in good health.

Discussion: It is not unusual for odontogenic infections to spread into the various potential spaces of the face and neck. The signs and symptoms consist of fever, chills, pain, difficulty with speech or swallowing, and trismus. Although infections of certain teeth usually spread to particular contiguous spaces, the rapid spread of these infections often makes localizing the exact space difficult. Any space, including the buccal, temporal, submasseteric, sublingual, submandibular, parapharyngeal, and others, may be involved .

Conclusion: There are many symptoms and signs of potentially life threatening infection that should be recognized by physician and urgent surgical treatment should be done for better prognosis.



## 26. LEKARSKE GREŠKE U MAKSILOFACIJALNOJ HIRURGIJI

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Uvod: Svaka profesija je uređena skupom pravila i propisa, a isto važi i za maksilofacijalnu hirurgiju. Nepoštovanje profesionalne radne etike, ili propust da se primeni uobičajeni stepen profesionalne veštine ili učenja, od strane nekoga ko pruža profesionalne usluge, a što dovodi do povrede, gubitka ili štete, predstavlja lošu lekarsku praksu. Na nivou Republike Srbije ne postoje zvanične studije koje ukazuju na zastupljenost neadekvatnog lečenja pacijenata u maksilofacijalnoj hirurgiji.

Ciljevi su da se ukaže na obim i zastupljenost grešaka u lečenju, podizanje svesti kako medicinskih radnika tako i stanovništva o neophodnosti pravovremenog reagovanja u slučaju bolesti, ukazati na potrebu za kontinuiranom edukacijom i usavršavanjem u korist adekvatnijeg lečenja i poboljšanje komunikacije maksilofacijalnih hirurga na teritoriji Republike Srbije. Najvažniji opšti cilj je ukazivanje na važnost dobre komunikacije između lekara kao i formiranja zvaničnog protokola u lečenju radi sveobuhvatnijeg pristupa pacijentu.

Na ovaj način želimo da prezentujemo nekoliko slučajeva kod kojih je došlo do previda u toku lečenja, zbog čega je lečenje produženo ili otežano, a usled pojave komplikacija.

## 27. EFFECTS OF COLD ATMOSPHERIC PRESSURE PLASMA ON ORAL SQUAMOUS CELL CARCINOMA – IN VITRO STUDY

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Oral squamous cell carcinoma (*OSCC*) are one of the most malignant neoplasm in oral cavity with mortality rate of more than 50%. Many advances in different treatment protocols have not changed the outcome of long-term survival of these patients. Consequently, the need of finding a different anti-cancer treatment modality is essential. Cold atmospheric plasma (*CAP*) is a tuneable source of complex chemically reactive components, which allows *CAP* to exert many biological effects on different tissues, particularly on malignant ones. Although increasing number of evidence suggest that *CAP* can induce cell death of different carcinoma, its mechanisms remain incompletely clear so far. The objective of this research was to evaluate antitumor effect of *CAP in vitro*, along with mechanisms underlying induction of apoptosis. *OSCC* cell line derived from tongue cancer was treated either directly using modified plasma needle as a source of *CAP* or by plasma-activated medium (*PAM*), for different exposure times. Both plasma treatments showed its suppressing effects on cell viability, cell adhesion, cell migration, and apoptotic cell death of

*OSCC* cells. In order to understand better the anti-cancer mechanism of *CAP*, the main chemically active species produced in *PAM* was measured and analyzed. Interestingly, demonstrated anti-cancer effect of *PAM* makes plasma an attractive anti-cancer tool that potentially could be used to prevent tumor growth and reach inaccessible tissue sites. Obtained findings are promising and encouraging for a potential application of *CAP* in treatment of oral carcinoma.

## **28. AIDS RELATED GIANT FACIAL KAPOSHI'S SARCOMA**

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Introduction: Kaposi sarcoma (KS) is the most common malignancy in HIV patients and accounts for approximately 33% of initial skin manifestations of AIDS.

Case report: A 33-year-old male patient was admitted to Clinic for Maxillofacial Surgery, Military Medical Academy because of purple colored skin lesion on cheek, mucosal ulceration and swelling on right side of face which gradually expanded from 1-12cm for five months. Previously treated in another institution and antibiotic therapy was prescribed and prolonged for 3 months, with poor efficiency. Patient came to our clinic for a second opinion, when we suspected KS. MRI, laboratory examination and biopsy of the tumor were performed - PH finding indicated KS and serum analysis for HIV was positive. The patient was referred to the Clinic for Infectious Disease for further treatment, immediately after diagnosis, where he was treated with the antiretroviral therapy for 2 months and had fatal outcome.

Discussion: It is necessary to bear in mind the possibility of KS in the case of non specific lesions in the maxillofacial region and perform the necessary analyses. Clinical picture, reliable anamnestic data, course of the disease and laboratory analyses lead to right diagnosis and timely treatment.

.Key words: Kaposi sarcoma, HIV, Maxillofacial;

## **29. SLOBODNI MIKROVASKULARNI TRANSFER TKIVA U REKONSTRUKCIJI HIRURŠKIH DEFEKATA ORALNE I MAKSILOFACIJALNE REGIJE**

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Cilj: Prikazati rezultate u mikrovaskularnoj rekonstrukciji kliničkih slučajeva sa defektima usne šupljine, lica, vilica.

Materijal i metoda: 49 pacijenata oba pola i uzrasta, od 5 do 73 godine imala je rekonstrukciju perinazalnog tkiva pomoću prelaminiranog submentalnog mikrovaskularnog režnja (1 pacijent); donje usne mikrovaskularnim režnjem podlaktice (4 pacijenta); brade i usne sa mikrovaskularnim nadlaktičnim prelaminiranim režnjem ruke (1 pacijent), jezika slobodnim mikrovaskularnim latissimus dorsi režnjem nakon subtotalne hemiglosektomije (1 pacijent); r pada usta sa mikrovaskularnim jejunalnim režnjem (1 pacijent); vilice sa onlejom, inlejom, interpozicionim slobodnih koštanim graftovima (36 pacijenata), maksile sa slobodnim skapularnim mikrovaskularnim graftom (1 pacijent); mandibule slobodnim fibularnim mikrovaskularnim graftom (4 pacijenta).

Rezultati: Lokalna infekcija se javila kod 2 pacijenta sa rekonstrukcijom mandibularne kosti koja je kontrolisana lokalnom irigacijom i pravilnom primenom antibiotika. Delimična nekroza tkiva se javila kod pacijenata sa mikrovaskularnom rekonstrukcijom nosa, ali bez estetskog i funkcionalnog značaja. Kasna tromboza 5. dana javila se kod 1 pacijenta sa rekonstrukcijom usne mikrovaskularnom podlaktičnim režnjem.

Zaključak: Moguća je uspešna rekonstrukcija izgubljenog tkiva, sa istim ili sličnim tkivom uz minimalni morbiditet u regiji rekonstrukcije, primenom mikrovaskularnog transfera tkiva.

## **30. PRELOMI JAGODIČNE KOSTI-ISKUSTVO KLINIKE ZA MAKSILOFACIJALNU HIRURGIJU UNIVERZITetskOG KLINIČKOG CENTRA VOJVODINE, NOVI SAD**

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Uvod: Položaj i izloženost jagodične kosti su razlozi zbog kojih je ona jedna od najčešće povređivanih kostiju lica.

Materijal i metode: Retrospektivnom studijom smo izvršili obradu medicinske dokumentacije pacijenata koji su lečeni na Klinici za maksilofacijalnu i oralnu hirurgiju u periodu 01.01.2012.-

01.10.2022. Prikupljeni i obrađeni podaci obuhvatili su: pol i godine pacijenata, mehanizam povređivanja, anatomsku lokalizaciju preloma, prodružene povrede kao i način lečenja preloma.

Rezultati: Ukupno je zbrinuto 368 pacijenata, od kojih je 74% bilo muškog pola a 26% ženskog pola. Najčešći mehanizam povređivanja pacijenata je fizički napad(38%), padovi (35%) i saobraćajni traumatizam (17%). U 68% slučajeva preloma jagodične kosti ovaj prelom je bila izolovana povreda, dok je kod 32% pacijenta ova povreda bila u sklopu drugih povreda kostiju lica. Pacijenti su lečeni transkutanom repozicijom u 26% slučajeva, otvorenom hirurškom metodom privremene potpore u 40% slučajeva i otvorenom repozicijom osteosintezom u 34% slučajeva.

Diskusija i zaključak: Ova studija je ukazala da su prelomi jagodične kosti najčešći zadesni usled fizičkog napada. Dobijeni statistički podaci bi mogli biti iskorišteni u formiranju zdravstvenog sistema koji bi omogućio prevenciju ovih povreda kao i mogućnost adekvatnog i efikasnijeg načina lečenja.

Ključne reči: zigomatična kost, osteositeza, hirurško lečenje