



## Abstracts of the Mediterranean Oral and Maxillo-Facial Surgery congress 2023

### DECLINE IN MAXILLOFACIAL INJURIES DURING THE PANDEMIC: THE HIDDEN FACE OF COVID-19

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**Abstract:** Maxillofacial injuries result from a variety of daily activities. Traffic accidents, interpersonal violence, and falls represent some of the most common etiological factors behind maxillofacial fractures. During the COVID-19 outbreak, the social distancing measures imposed by healthcare authorities aimed at abolishing the spread of the viral infection. This study aimed to evaluate the effect of social distancing measures on the incidence of maxillofacial injuries.

### OSTEOLIPOMA OF THE MAXILLARY BONE: A CASE SERIES

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**Abstract:** Lipomas are benign mesenchymal neoplasms of soft tissue that can be found commonly in any part of the human body. A rare lipoma variant, known as an osteolipoma or an ossifying lipoma, may occur; however, little has been written about this type of lipoma characterized by a classical lipoma with areas of osseous metaplasia. The purpose of this paper is to present a cases of osteolipoma in the maxillofacial district, their radiological findings and the histopathology.

**Case presentation:** A case report is presented where the diagnostic and therapeutic methods are illustrated in the treatment of this rare pathology affecting the bone tissue which must necessarily be placed in differential diagnosis with other malignant pathologies. Localization, size and invasion of the surrounding structures were the main prerogatives for surgical treatment in these 3 rare cases of osteolipomatous pathology, carefully analyzed post-operatively by pathological anatomy colleagues.

**Conclusions:** The few cases in the literature highlight a need for the clinician and pathologist to keep this entity in mind when considering

the radiographic and clinical differential diagnoses for these lesions. Histopathological diagnosis according to the criteria mentioned in this review will help to categorize these rare lesions and further understand their origin. Despite their benign nature and lack of recurrence, it is important to differentiate them from liposarcomas when presented with clinical evidence of malignancy.

**Keywords:** Bone tumor; Osteolipoma of the skull bone; Jaw reconstruction; Osteosarcoma; Hemimaxillectomy; Facial paralysis

### HOW CAN WE QUANTIFY QUALITY OF LIFE CHANGES AFTER TREATING PATIENTS WITH HEAD AND NECK CANCER?

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**Objective:** This study aimed to assess the impact of head and neck cancer and its treatment on the quality of life (QoL) of diagnosed patients. Specifically, the focus was on evaluating clinically significant changes using certified QoL instruments, namely the EORTC QLQ-C30 and EORTC QLQ-HN35.

**Materials and Methods:** Baseline and two-month follow-up data were collected from the patients through the administration of the EORTC QLQ-C30 and EORTC QLQ-HN35 questionnaires. The Minimal Clinically Important Differences (MCID) were calculated using both anchor and distribution-based methods to determine meaningful changes in deterioration and improvement. The Karnofsky Performance Scale (KPS) was used as the anchor for assessing significant change.

**Results:** Statistically significant and clinically meaningful changes in symptoms were observed in patients who experienced deterioration. Using the KPS anchor, deterioration in various domains ranged from 7.2 units (physical functioning) to 16.7 units (Global Health Status), while improvements ranged from 1.6 units (role functioning) to 6.6 units (Global Health Status). Both instruments yielded distribution-based estimates close to 0.5 standard deviations.

**Conclusion:** The EORTC QLQ-C30 and QLQ-HN35 question-

## DOUBLE MANDIBULAR OSTEOTOMY - A SINGLE-CENTRE STUDY

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**Objectives:** The double mandibular osteotomy, as a surgical mode to access the deeper neck tissues adjacent to the carotid sheath and up to the skull base, is a method that in the researchable literature appears not more than 50 years. Ours' clinic case series confirms that this surgical approach is mandatory for the treatment of parapharyngeal tumours and other neck medical conditions.

**Materials and Methods:** Our study group consists of 11 patients, where 10 of them finally were treated by using the surgical technique of the double mandibulotomy, during the last 6 years.

**Results:** The females, were the 7 of our patients, and the mean age of the study sample was 47,9 years old. The main causes of the double mandibulotomy process were 54,54% for parapharyngeal tumours and 18,18% for deeper lobe parotid tumours. The reference of the patients to our clinic was due to an incidental radiologic finding for a percentage of 27,27. The mean lesion measures was 4,68 cm. The long-term uneventful follow up revealed a 90% score. The 60% of the procedures necessitated the cooperation with a non oral and maxillofacial specialty surgeon.

**Conclusion:** The double mandibular osteotomy is an essential way to treat deeper neck surgical lesions and medical conditions. It may be executed by a multidisciplinary surgical team and a statutory head and neck surgical centre is essential. Our case series could be a useful addition to the literature data.

## THE COMBINATION OF INFLAMMATORY BIOMARKERS AS PROGNOSTIC FACTOR IN MALIGNANT SALIVARY GLAND TUMORS

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**Abstract: Objectives:** The aim of this study was to investigate how the main preoperative inflammatory biomarkers, as systemic inflammation response index (SIRI), systemic immune-inflammation index (SII), neutrophil-to-lymphocyte ratio (NLR), and platelet-to-lymphocyte ratio (PLR), taken individually and combined, might be related to overall survival (OS) in surgically treated patients for malignant salivary gland tumors (MSGTs).

**Methods:** A retrospective analysis on 74 cases of MSGTs following surgery at Maxillofacial Surgery Unit between January 2011 and June

2018 was performed. For each patient the values of SII, SIRI, PLR, and NLR were calculated and the Receiver Operating Characteristic (ROC) curves were used to obtain the optimal cutoff values for each index. Survival curves at 1–3–5 years of patients with different combinations of inflammatory biomarkers values were estimated using the Kaplan–Meier method.

**Results:** The optimal thresholds with the highest sensitivity and specificity were 3.95 for NLR, 187.6 for PLR, 917.585 for SII, and 2.045 for SIRI. The univariate analysis revealed that all the indices, when above the calculated threshold value, were related with a worse prognosis; the ROC curves revealed that the more significant prognostic combination was SII + SIRI. The estimated 5-year OS rate in patients with SII + SIRI above cut-off was 12.5% ( $p < 0.001$ ).

**Conclusion:** Preoperative inflammatory biomarkers can be used as an effective and low-cost prognostic factor to stratify high-risk patients surgically treated for MSGT. SII + SIRI combination can independently predict the OS of these patients, because when both indices are above the threshold, the prognosis is worse. The prognostic score system based on SII + SIRI may be good clinical practice as a reference for clinical decision-making.

**Keywords:** malignant salivary gland tumors; overall survival; inflammatory biomarkers; systemic immune-inflammation index; platelet-to-lymphocyte ratio; neutrophil-to-lymphocyte ratio; systemic inflammation response index.

## USING QR CODES TO EFFECTIVELY COLLECT PATIENT FEEDBACK WITHIN ORAL SURGERY UNITS

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**Abstract: Objectives:** Feedback is essential for commissioning, service evaluation and improving patient care. Tools of collecting feedback such as Patient-Reported Experience Measures (PREMS) are advocated in the "Guide for Commissioning Oral Surgery and Oral Medicine". PREMS evaluate experience at the time of care. Collecting PREMS can often be challenging due to the resources required and is often only collected over a short time period, which limits its use and effectiveness.

We therefore aimed to obtain patient feedback through PREMS in a sustainable, effective and long-term manner and evaluate our service.

**Materials and Methods:** A 10 question PREMS survey was created using JISC Surveys based upon the "Guide for Commissioning Oral Surgery and Oral Medicine." A QR Code was created to allow patients to access the survey and paper alternatives were also available. Following every treatment appointment, patients were offered the opportunity to complete the surveys across two sites.

**Results:** Sixty-four responses were received from 26th February 2023 to 31st May 2023. Of these 95.3% were received using QR codes and 4.7% were received using the paper format. The patient's assess-

ment appointment was conducted using a face-to-face appointment for 93.75% of respondents, whereas 6.25% were remote. All respondents felt involved in their treatment decision, received information on risk and benefits and were able to ask questions. Furthermore, all respondents also reported their pain and anxiety was managed well during the procedure, that they received appropriate aftercare advice and were given emergency contact details. Where applicable all patients reported receiving information about medication side-effects.

**Conclusion:** Collecting PREMS using QR Codes appears to be an effective method of collecting patient feedback, without exhausting resources and with good patient compliance. This study also evidences the excellent quality of our service. Consideration should be given to expanding PREMS to collect further data on areas on interest.

**Keywords:** Feedback, PREMS, QR Codes, Patient, Oral Surgery

## ARTIFICIAL INTELLIGENCE AND MACHINE-LEARNING IN CRANIO MAXILLO-FACIAL SURGERY: OUR EXPERIENCE

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**Objectives:** The practice of surgery requires making rapid and complex decisions while managing the sometimes-uncertain health consequences for patients. In this regard, Artificial Intelligence (AI) have improved the surgeon's southerly activity in all phases of patient management: screening, diagnosis, surgical procedure, and follow-up. It is specified how AI represents a modern technology with the ability to perform a task reserved for humans: learning, perception, reasoning, recognition. Machine learning (ML) a subdiscipline of AI, then, aims to design computer models capable of performing a task without having been explicitly programmed to do so. This type of learning is regularly employed in healthcare because of the complexity of data and high heterogeneity of patients.

The purpose of our study involved evaluating the effectiveness of ML in maxillofacial surgery.

**Methods:** ML capabilities were explored in several areas: trauma, oral surgery, and oncology to obtain an automated detection of maxillofacial fractures, to differentiate cystic lesions of the jaws, salivary gland tumors, and identify lymph nodal metastases in early stage of tongue cancers. The parameters analyzed regarded radiomic features extracted from MRI or CT associated then with inflammatory biomarkers obtained from blood sampling. Univariate analyses with nonparametric tests and multivariate analyses with machine learning approaches were used to validate the protocol.

**Results:** All clinical outcomes variables showed statistically significant differences ( $p < 0.05$ ) in the Kruskal–Wallis test on median values. The multivariate analysis permitted to identify in each research field the best combinations of features and clinical parameters with a mean of 84% accuracy, 73% sensitivity, and 89% specificity.

**Conclusion:** In our experience, the AI may represent a valid support system for diagnosis, therapeutic decision, preoperative planning, or

prediction of the outcome. However, there are still some challenges particularly in terms of ethics and data protection, to offer an augmented medicine.

**Keywords:** Artificial Intelligence, Machine-learning, Inflammatory Biomarkers, Traumatology, Head-Neck Oncology, Oral surgery

## ANCHORING AND SUTURING OF THE SCHNEIDERIAN MEMBRANE- AN IMPORTANT TOOL FOR SELECTED CASES OF LARGE PERFORATIONS

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**Background:** The most frequent complication encountered while performing sinus floor elevation augmentation is membrane perforation. The incidence of this complication has been reported to span from 10% to 56%. A vast array of techniques have been reported to manage the different types of perforations.

**Objective:** The objective of the present study is to report on a modification of a previously published procedure that can be used for repair of large, superiorly based Schneiderian membrane perforations.

**Methods:** 11 patients undergoing sinus floor elevation augmentation via the lateral window approach, were diagnosed with a superiorly based, large (>1cm) membrane perforation. In order to correct the perforation, two small holes were made through the superior aspect of the bony window and the membrane was fixed with resorbable sutures through these holes. Next, a large (30\*40mm) resorbable collagen membrane was inserted, following Xenograft filling, with or without dental implants.

A step by step procedure and literature review is presented.

**Results:** A total of 11 large perforations were treated via the described approach with no reported complications.

**Conclusions:** when thickness of the membrane and location of the perforations permit, anchoring the perforated membrane is an important tool in the surgical armamentarium. Fixing the membrane to bone, achieves integrity, thus, enabling to minimize secondary complications and maintaining the normal function of the sinus.

## PTOSIS OF FACIAL SOFT TISSUE: A QUANTITATIVE ANALYSIS USING 3D FACIAL SCAN APP FOR SMARTPHONE

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**Objectives:** Although the modifications of the aging face have been widely described, to the best of our knowledge, there are no studies