Surgical treatment/*Trattamenti chirurgici*

COULD LEUKOCYTE AND PLATELET RICH FIBRIN INFLUENCE THE SURGICAL TREATMENT OF MEDICATION-RELATED OSTEONECROSIS OF THE JAWS (MRONJ)?

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Background. Medication-related osteonecrosis of the jaws (MRONJ) is a drug-related adverse reaction associated with progressive necrosis of maxillary or mandibular bone, which occurs in patients treated with drugs related to increased risk of this disease, not treated with radiation therapy in the head and neck district. Drugs that can cause this condition are antiresorptive, including bisphosphonates, with different risks depending on administration, and antiangiogenics. These drugs are used as first-line in patients with severe osteoporosis or affected with bone metastases; therefore, this condition can affect patients' quality of life, which is often already reduced by their oncological diseases or multiple bone fractures. The treatment of MRONJ is frequently very complex and variable depending on various factors, including the stage of osteonecrosis and the patient's general health condition; surgical therapy plays a key role in cases with weak or no response to non-surgical therapy, but it is for some cases, not therapeutic but palliative for the symptomatology associated with the condition. Among the most recent technical developments in the surgical field, in relation to osteonecrosis, we find the application of blood components not used for transfusion, such as platelet-rich plasma (PRP). These whole blood components have a high number of growth factors that can promote healing of surgical sites by stimulating tissue regeneration. Through the centrifugation of blood, it is possible to obtain membranes rich in platelets and leukocytes (L-PRF) of autologous origin, which can be applied at surgical sites.

Patients and methods. Ten patients showing exposed bone in addition to current or past intake of osteonecrosis-related drugs were included in this case series. Among the selected patients, with a mean age of 71 years only one patient was male. In all cases included, the stage one pathological condition, did not respond to medical therapy in the presence of reported symptoms, such as painful condition and osteonecrosis affected the mandible in 90% of these cases. All patients underwent surgical debridement, with surgery by primary intention, but in five cases L-PRF membranes was applied surgically. Intraoperatively, a specimen was collected and submitted to histological examination, which confirmed the presence in all treated cases of necrotic bone. Subsequently, the patients were monitored during the wound healing to identify any persistence of the disease. The cases included in the study had no active-stage oncological diseases and were retrospectively selected.

Results. All cases treated with L-PRF application, accounting for 50%, showed complete healing in the absence of bone exposure in both the short- and long-term evaluation, with one year follow-up. Whereas two of the five cases treated surgically in the absence of L-PRF application showed a suboptimal postoperative course, with persistence of exposed bone one in the maxillary and one in the mandibular site, in the absence of a complete resolution of the pathological aspect.

Conclusions. In agreement with the most recent literature, L-PRF can be a valuable aid in surgical treatment of osteonecrosis of the jaws, in relation to its properties, for the presence of growth factors able to promote healing and tissue regeneration. Currently, there are few studies in the literature about the use of this procedure in MRONJ surgical treatment; therefore, further studies are needed in order to define a specific protocol and confirm its outcomes.

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EXTRA-PLATYSMAL RECONSTRUCTIVE PLATE FOR THE SURGICAL TREATMENT OF MANDIBLE ONJ: OUR EXPERIENCE IN 20 PATIENTS

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Background. Osteonecrosis of the jaw is a pathology of both the maxillary and mandibular bone related to both the systemic treatment with ONJ-related medications and Radiotherapy of the head and neck region. ONJ severely affects the quality of life of the patient and increases his burden of disease. The aim of the treatment of the ONJ is to slow the progression of bone necrosis and prevent the development of the advanced stage pathology complications. Surgical treatment is required under specific indications and the extent of bone resection depends on the amount of affected tissue. One of the main concerns related to mandibular ONJ is pathological fractures. When a conservative surgical treatment is indicated, it is crucial to balance the need of complete removal of affected bone and the necessity to guarantee adequate residual bone thickness. In our experience, in case of high risk of pathological or iatrogenic fracture, bone fixation using a pre-plated extra-platysmal reconstructive plate can supply adequate load bearing strength to the residual mandible and avoid the direct communication of the internal fixation devices and intra-oral surgical site, thus reducing the risk of contamination and infection.

Patients and methods. From 2013 to 2023, 20 patients underwent surgical curettage of the necrotic bone site and insetting of extra-platysmal 2.5 mm reconstructive locking plate through sub-mandibular cervical access. Post-operatory clinical and radiological follow-up has been assessed.

Results. Sixteen patients were diagnosed with MRONJ (14 related to Bisphosphonates, 1 related to Bisphosphonates and Denosumab and 1 related to Denosumab) and four patients were diagnosed with Osteoradionecrosis. After a mean follow-up time of 20.1 months, 15 patients were disease-free and no infection or exposition of the plate were observed. In 2 patients (1 with MRONJ and 1 with Osteoradionecrosis), local progression of disease has been observed, and a further surgical curettage was performed, without the need for plate removal. In 1 patient, local progression of disease has been identified, and, at the time of writing, a clinical wait and see strategy has been adopted. In 2 patients, local progression of disease has led to segmental mandibulectomy and total plate removal and no reconstructive strategy has been considered.

Conclusions. The technique is safe, associated with a low morbidity rate; furthermore, also patients with poor general clinical conditions can undergo this kind of surgery, allows to perform effective surgical curettage of the necrotic tissue and reduces the risk of pathological and iatrogenic fractures of the mandible. In our experience the rate of disease control is encouraging and the complications related to the technique and to the presence of the plate and screws are limited. The technique can offer a favorable risks-benefits ratio if surgical treatment of ONJ of the mandible is indicated.

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CLINICAL AND PHARMACOLOGICAL EVALUATION IN THE SURGICAL TREATMENT OF PATIENTS WITH DRUG-RELATED OSTEONECROSIS OF THE JAWS

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Background. Osteonecrosis of the jaw (ONJ) is a rare but serious adverse drug reaction (ADR) commonly associated with bisphosphonate and denosumab therapy.

The purpose of our study, which reviews our experience in patients treated surgically for drug-related onj of the jaws, is aimed at assessing the possible incidence of recurrence as a function of the drug used in neoplastic treatment.

Patients and methods. The sample analyzed was 109 patients of whom 75 were treated with bisphosphonates and 34 with denosumab.

The inclusion criteria is related to the severity of the pathology (studied patients at stage 2 and 3 according to SICMF – SIPMO classification) who took exclusively bisphosphonates or denosumab for bone secondarisms.

The study also considered the duration of treatment of patients included in the sample under review.

Results. There were 17 recurrences of which 11 in treated with bisphosphonates and 6 with denosumab.

Conclusions. Although few variables related to the pathology under study were considered showed that there were no differences in terms of post-surgical recurrence of patients who took these drugs for cancer therapy.

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USE OF 3D CUSTOM-MADE TITANIUM PROSTHESIS FOR MANDIBULAR RECONSTRUCTION IN PATIENTS WITH STAGE III MEDICATION-RELATED OSTEONECROSIS

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Background. The purpose of this article is to present the outcomes of using customized mandibular prostheses without protective pedunculated flap in treating patients suffering from Stage III Medication-related osteonecrosis of the jaw (MRONJ).

Patients and methods. The diagnosis of mandible's MRONJ was performed for each patient by clinical and anamnestic evaluation. Preoperative orthopantomography, CT and incisional biopsy of the exposed bone, if present, and of the surrounding mucosa were performed. The staging of the lesions was performed according to the SIPMO-SICMF classification of MRONJ. Using 3D virtual surgical planning the necrotic bone was removed. Surgical guides were manufactured using a 3D printing method after obtaining a proper design of the osteotomy lines. The positioning of the custom jaw prothesis was digitally performed. Drill holes had been prepared in each surgical guide to assist in affixing them and they would also be used for the fixation of the prostheses with osteosynthesis screws. Finally, custom mandible prothesis systems were designed and then obtained with the selective laser melting (SLM) technique. Data regarding the long-term complications/functions were evaluated at 3, 6, 12, and 24 months after surgery

Results. 5 patients underwent mandible computer-assisted resection and rehabilitation with custom prostheses. From the immediate post-operative period all the patients demonstrated good mandibular function. In only one case, the prosthesis also replaced a mandibular condyle. The minimum time of follow-up was 6 months, the longest 2 years. None of the patients showed oral exposure of the prosthesis.

Conclusions. In advanced cases of Medication-Related Osteonecrosis of the Jaw (MRONJ), where the removal of necrotic bone could cause a mandibular fracture, custom prostheses replacement appears to be an effective treatment option. Even without a pedicle flap to shield the prosthesis, patients can achieve optimal mandibular function.

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COMPARING THE EFFICACY OF HUMAN AMNIOTIC MEMBRANE IN TREATING STEGE II *VERSUS* STAGE III MRONJ

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Objectives. The purpose of this article is to present the findings of a study that utilized human amniotic membrane (HAM) to promote surgical wound healing and decrease the likelihood of relapse in patients with medication-related osteonecrosis of the jaw (MRONJ). The study aimed to compare the effectiveness of HAM in treating Stage II and Stage III of the condition.

Materials and Methods. A total of 52 patients with the diagnosis of MRONJ (only stage II and stage III), were treated between October 2016 to June 2023 at the unit of Maxillofacial Surgery of the Ca'Foncello Hospital in Treviso. The patients underwent MRONJ surgical treatment with the placement of amniotic membrane patches at the wound site. Staging of the lesions was performed according to the classification of MRONJ set by the Italian Society of oral medicine with the Italian Society of maxillofacial surgery.

Results. In the Stage II group, there were a total of 18 patients (3 males and 15 females) with 23 surgical sites. The average age of the patients was 67.34 ± 10.41 years. In the Stage III group, 34 patients (11 males and 23 females) with 35 surgical sites were enrolled, with an average age of 69.13 ± 13.27 years. Of these patients, 35 were taking Zoledronic acid, 10 were under treatment with other bisphosphonates, and the remaining 7 were treated with denosumab. Antiresorptive agents were being taken by 32 oncological patients (61.5%). The median follow-up period was 18.75 months. After 30 days from the surgical treatment, only 4 patients (1 in Stage II group and 3 in Stage III group) showed persistent bone exposure. However, all of the patients were successfully retreated.

Conclusions. The use of amniotic membrane has a fast-learning curve that justifies its routine use to improve the predictability of interventions for managing medication-related osteonecrosis of the jaw (MRONJ). The success of using human amniotic membrane (HAM) does not seem to be related to the severity of MRONJ, as it has been found to be helpful in both mild and moderate cases.

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Other aspects of treatment/Altri aspetti di trattamento

MRONJ OF THE JAWS: MINIMAL INVASIVE TREATMENT. OUR PERSONAL SUGGESTIONS

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Background. Over the years various protocols for MRONJ have been presented in the literature; there is however no unanimous agreement about the gold standard treatment for osteonecrosis of the jaws. The goal of the MRONJ treatments should be the control of the infection and progression of bone necrosis, and the control of pain.

Patients and methods. The treatment protocol adopted in the Oral Surgery Unit of the Department of Dentistry, IRRCS San Raffaele Hospital, Milan has been applied to the treatment of 28 patients from January 2021 to November 2023. An extra- and intra-oral dental examination in addition to a level I radiographic examination (OPT) was performed in all patients; furthermore, a CBCT was performed in stage I, II, III[1]. The medical history showed positive results for the use of Alendronic and Zoledronic acid (oral, intravenous) and Denosumab (subcutaneous), for at least one year (drug intake range 1-9 years) in all treated patients. The lesions were located in the mandible (20 cases) and in the maxilla (8 cases). The patients were staged as stage 0, I, II, III[2]. Specifically, 2 patients were in stage 0; 11 patients in stage I; 12 patients in stage II; 3 patients in stage III (extraoral fistulas, mandibular fracture). All patients were treated by the same operator according to the same therapeutic protocol. Antibiotic and antiseptic prophylaxis was performed 7 days before surgery with Amoxicillin 1000mg (1 tablet/12 hours) and CHX 0.2% mouthwash (3 rinses/day). Surgical management, under local anesthesia, involved the debridement of the necrotic bone area through a mucoperiosteal flap, without interrupting bone continuity using a combined technique with low-speed surgical handpiece, multilayered burs and Lucas surgical curette, until obtaining bleeding from the healthy basal bone substrate. Finally, bone cavity irrigation with chlorhexidine was performed, hemostatic collagen sponges were placed, and the flaps were sutured to achieve primary closure. Once discharged, patients were treated with Amoxicillin 1000 mg tablets (1 tablet/12 hours) and CHX 0.2% mouthwash (3 rinses/day) until mucosal continuity was obtained. After achieving mucosal healing, laser biostimulation sessions were performed using a diode laser (Raffaello DMT, 600 mm fiber, l = 980 nm, continuous emission, P = 0.5 W/cm_2, 4 cycles), once a week for 4 weeks. Follow-up were conducted at 7, 14, 21, and 28 days after the surgery. A radiographic examination (OPT) was performed at 3 and 9 months.

All stage 0, I, and II patients achieved complete healing, with restitution ad integrum of the soft tissues and disappearance of the necrotic area. In stage III patients, surgical debridement led to a reduction in the necrotic area, with partial closure of extraoral fistulas in all patients.

Conclusions. In this study, a conservative surgical protocol for the management of MRONJ was presented, which allowed a complete healing in stage 0, I, and II. The success of this protocol demonstrates the effectiveness of combining diverse expertise, comprehensive patient evaluation, and continuous monitoring to ensure optimal healing and patient care. Clinical studies are needed to confirm and improve the validity of the present protocol to treat MRONJ.

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TREATMENT AND OUTCOME OF MAXILLARY SINUSITIS ASSOCIATED WITH MAXILLARY MRONJ

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Background. Medication-related osteonecrosis of the jaws (MRONJ) is a pathologic condition of the maxillary bones arising following the treatment with anti-resorptive/antiangiogenic drugs for the modulation of bone remodeling. MRONJ is currently defined by the clinical presence of exposed bone or bone that can be probed through an intraoral or extraoral fistula(e) for more than 8 weeks, with an history of administration of antiresorptive or antiangiogenic agents, in the absence of previous head and neck radiation therapy or jaw metastases of other tumors. Advanced cases of maxillary MRONJ can involve the maxillary sinus, leading to degenerative changes in the antral mucosa and eventually to maxillary sinusitis. MRONJ has been reported to be a predisposing factor for sinusitis, as the development of bone necrosis and secondary infections facilitate the disruption of the Schneiderian membrane. The purpose of this study was to evaluate the efficacy of conservative surgical treatment of maxillary sinusitis associated with MRONJ.

Patients and methods. Subjects diagnosed with MRONJ associated to maxillary sinusitis, treated with conservative surgery and with a follow-up period of at least 6 months were included. Conservative surgical treatment was performed under antibiotic prophylaxis and involved sequestrectomy, soft tissue debridement and bone curettage with limited or no extension. Maxillary sinusitis treatment comprised antral lavage with saline. The degree of involvement of the maxillary sinus was classified using the classification of Kurabaiashi and collaborators.

Results. Thirty-six patients (mean age of 71.5 ± 9.9 years (range 45-88)) were enrolled, for a total of 36 lesions. Thirty-one patients were treated with bisphosphonates intravenously for neoplastic disease (metastatic breast cancer 16 patients, 45%; multiple myeloma 9 patients, 25%; metastatic lung cancer 3 patients, 8%; metastatic prostate cancer 1 patient, 3%; metastatic kidney cancer 1 patient, 3%). The remaining 5 patients were receiving bisphosphonates for the treatment of osteoporosis. Six-months after conservative surgical treatment, complete resolution was observed in 87% of cases (32 lesions). Oro-antral communication residuated in five patients and was treated with a removable prosthesis with obturator.

Conclusions. Conservative surgical treatment of MRONJ lesions associated to maxillary sinusitis, may represent a valid therapeutic approach. Conservative surgery should be encouraged at early MRONJ stages and after medical therapy failure.

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CAN PENTOXIFYLLINE AND TOCOPHEROLS IMPROVE THE MANAGEMENT OF PATIENTS WITH MEDICATION-RELATED OSTEONECROSIS OF THE JAW?

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Background. Pentoxifylline is a methylxanthine able to inhibit inflammation and promote peripheral blood flow. Indeed, among other activities, it decreases leukocyte adhesion to endothelial cells and increases red blood cell deformability. Tocopherols include various methylated phenols that can protect cell membranes from oxidative stress and reduce inflammation and tissue fibrosis. Due to these effects, the combined use of pentoxifylline and tocopherols (PENTO-protocol) is the current standard drug-therapy in Osteoradionecrosis of the jaw.
A few reports described the clinical efficacy of the PENTO-protocol also in Medication-related osteonecrosis of the jaw (MRONJ) but data are still scanty. Currently the PENTO-protocol is not included in the clinical-therapeutic recommendations published by SIPMO-SICMF (the most authoritative source at present). We report our clinical experience in 12 MRONJ patients treated with the PENTO-protocol.
Patients and methods. In 2023, patients with a new diagnosis of MRONJ and referred to the Oral Medicine and Oral Oncology Unit of the San Luigi Gonzaga Hospital in Orbassano, were adjunctively treated with the PENTO-protocol (Pentoxifylline 400 mg twice a day and Tocopherols 800 IU once a day). The current recommendations were followed in prescribing other medical treatments (antibiotics, chlorhexidine, and painkiller) and planning surgery.
Results. Twelve patients received the PENTO-protocol; 4 had MRONJ related to treatment for osteometabolic diseases and 8 related to treatment for bone metastases. MRONJ involved the maxilla in 4 patients and the mandible in 8 patients. All cases were classified as stage 1 or 2.
At the first evaluation pain and/or acute infection were variably present. 5 out of 12 patients complained of pain in the absence of infection; 7 had signs and symptoms of an acute infection (unrelated to pain).
Indication to surgery was given in 9 out of 12 patients, 2 spontaneous sequestrectomies were observed while preparing surgery and a wait and see approach was adopted in 3 patients, due to systemic conditions.
As PENTO-protocol results, we obtained and maintained a complete symptom remission in all the 5 patients with pain (3 also treated with antibiotics due to acute infection).
No relapse of symptoms/infections were reported neither in patients waiting for surgery nor for patients allocated in the wait and see group. No side effects were observed.
Conclusions. Mechanisms of action of Pentoxifylline and Tocopherols in treatment of bone necrosis (either MRONJ or Osteoradionecrosis) have not been fully elucidated yet. The present report supports a potentially positive effect of the PENTO-protocol, as an adjunctive treatment in MRONJ patients, particularly useful in pain control.
Our observation is in agreement with previous reports describing the PENTO-protocol as able to hinder bone necrosis development and to favor its delimitation by reducing inflammation and improving bone perfusion. Of interest we frequently observed a good control of pain.
In the absence of side effects PENTO-protocol can be considered a non-invasive, well tolerated, and non-expensive treatment which could be considered as valuable adjunctive treatment in MRONJ.

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MANAGEMENT OF MRONJ PATIENTS WITH OZONE INFILTRATION AND PIEZOELECTRIC SURGERY: UPDATE OF A 29 PATIENT CASE SERIES WITH STAGE 1 TO 3 MRONJ

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Background. Medication-related osteonecrosis of the jaws has been reported to be associated with bisphosphonate and RANKL inhibitor medications. This prospective clinical study aimed to assess the outcomes of pre-operative ozone infiltration therapy in Stage 1 to Stage 3 MRONJ patients.

Patients and methods. The treatment protocol was designed as 20 applications ozone infiltration therapy followed by surgical interventions of necrotic tissue debridement using piezoelectric surgery instruments. The evaluation of the results based on the clinical and radiologic specifications considering the necrotic lesion healing. The study included 37 lesions in 35 patients. The mean follow-up was 23.6 months.

Results. 31 lesions out of 37 healed. The outcomes were not affected by any variables such as gender, age, type of pharmacological treatment, lesion location, and MRONJ staging. The statistically significant results were found among the clinical condition of the patients (*p = 0.01)* and administration route of medications (*p=0.004*). Healing was significantly less in patients that received intra-vascular administrations. Clinical conditions of the patients were divided as osteoporosis, oncologic, and arthritis. Significantly better results were obtained in osteoporosis patients. 40 % of the population experienced spontaneous expulsion with signs of improvements and the surgical interventions were canceled. According to the results, total healing of MRONJ lesions was seen in 82.8 % patients (83.7 % lesions).

Conclusions. Ozone therapy and debridement with Piezoelectric surgery can be considered as a safe and beneficial adjunctive treatment alternative for osteonecrosis lesions in cases of Stage 1 to Stage 3 MRONJ patients.

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EVALUATION OF DIFFERENT THERAPEUTIC APPROACHES FOR THE MANAGEMENT OF MRONJ: A RETROSPECTIVE STUDY

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Background. The optimal treatment approach of MRONJ remains a challenge. Recent studies are focused on upgrading the conventional treatment approaches with adjunctive methods; such as photobiomodulation (PBM) and autologous platelet concentrations (APC). This study aims to compare the effectiveness of four different protocols for the management of MRONJ. In addition, the correlation of different variables with the healing outcome is analysed; including smoking habit, drug therapy, concomitant systemic diseases, MRONJ localization and stage, type and duration of ONJ-related drugs.

Patients and methods. A retrospective study was conducted at the MoMax (Oral Medicine and Maxillofacial) unit of the Department of Oral and Maxillofacial Sciences, Policlinico Umberto I of Rome, Sapienza University of Rome.The department's database and medical records were searched, and a total of 59 MRONJ patients were divided according to the management protocols into four groups: Group 1 (G1): patients (n = 26) treated with antibiotic therapy + surgery + PBM + L-PRF; Group 2 (G2): patients (n = 7) treated with antibiotic therapy + surgery; Group 3 (G3): patients (n = 16) treated with antibiotic therapy + PBM, and Group 4 (G4): patients (n = 10) treated with antibiotic therapy + surgery + PBM.

Systemic antibiotics (1g Amoxicillin/Clavulanic Acid and 250mg Metronidazole) were prescribed 2 times daily starting 3 days before the surgery in G1, G2, and G4 and continued till the 7th day after. In G3, antibiotics were prescribed in case an infection occurred. In addition, antiseptic mouthwash of 0.2% chlorhexidine was prescribed 3 times daily for 15 days in all the groups.

A multidiodic laser (Lumix C.P.S. Dental, FISIOLINE, Verduno, Cuneo, Italy) emitting simultaneously 650nm, 810nm, and 910nm wavelengths was used for the PBM application, with the following parameters (per session): total power of 0.6W, time of 15min, frequency of 30kHz, and total energy of 577.4J. In G1 and G4, two PBM sessions were performed before the surgery and four PBM sessions were performed postoperatively. In G3, two PBM sessions a week for four weeks (total eight sessions) were performed.

The surgical approach in G1, G2, and G4 was conducted through the elevation of a full-thickness mucoperiosteal flap to expose the surgical area; necrotic bone and granulation tissue were removed using surgical curettes and rotary instruments were used for osteotomy and smoothening out all sharp bone margins. In G1, the L-PRF membranes were placed above the bone surface and primary closure of the mucoperiosteal flap was performed using resorbable sutures.

Follow-ups were performed at 7 and 15 days and at 1, 3, 6, and 12 months. The healing outcome was evaluated at 6 months and 1 year follow-ups.

Results. A marginal correlation was found between the treatment protocols and the outcomes at 6 months ($p = 0.062$), while a statistical significance was found at 1 year follow-up ($p = 0.039$). The highest healing outcome at 6 months was observed in G1, while at 1 year was observed in G4. No significant correlation was found between the treatment outcome and the following variables: smoking habits, drug therapy, concomitant systemic diseases, MRONJ localization and stage, and duration of ONJ-related drugs. A significant correlation was observed between the type of the MRONJ-related drug and treatment outcomes in G2, G3, and G4, while the treatment outcomes in the patients of G1 did not show any influence with the type of MRONJ-related drug.

Conclusions. This study demonstrates that the treatment protocol combined with L-PRF membrane shows more favourable outcomes compared to single protocols at the 6 months follow-up; while, at 1 year follow-up, the better outcome was observed with the combined protocol of antibiotic therapy + surgery + PBM. However, it should be underlined that the effectiveness of the L-PRF seems to be independent of the type of MRONJ-related drug compared to other protocols. Further research is needed with a larger sample size to confirm these promising results.

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NONOPERATIVE THERAPY IN STAGE I MRONJ: IS REALLY AN APPROPRIATE OPTION?

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Background. The best treatment option for early-stage lesions in medication-related osteonecrosis of the jaw (MRONJ) remain controversial. Operative therapy (segmental or marginal resection of the mandible and partial maxillectomy) are effective methods to control MRONJ. The efficacy of nonoperative therapies in the management of MRONJ is documented in the literature. Nonoperative therapy include local wound care to exposed bone, antimicrobial rinses, removal of sequestrum, systemic antibiotics, pain control.

The objective of our study was to compare the effects of operative *versus* nonoperative therapy on the resolution of stage 1 MRONJ.

Patients and methods. We have carried out a retrospective analysis of patients with early lesions of MRONJ (stage 1 according to SIPMO-SICMF) treated at our department between January 2020 and December 2022. Data collected and analyzed included: site of onj, treatment strategies, treatment success (defined as mucosal integrity without signs of infection), worsening stage and necessity for surgical intervention over time.

Results. A total of 74 patients were included in this study; a total of 20 (27.1%)) lesions were located in the maxilla and 54 (72.9%) lesions in the mandible. 43 (58,10%) patients received operative therapy; 31(41,9%) patients underwent nonoperative therapy. The median follow-up period was 13.5 months in the surgical group compared with 12.5 months in the nonsurgical group. Treatment success was achieved in 10 patients in the nonoperative therapy group: of these, 6 showed worsening of disease stage and necessity for surgical intervention during follow-up. Treatment success was achieved in all patients treated with surgery, with no recurrence of disease during follow-up.

Conclusions. The results of our report confirm that operative therapy represents the best treatment strategy even in stage I of MRONJ. Nonoperative strategies can be useful when significant comorbidities preclude operative treatment.

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