

Osteonecrosis of the Jaws: From Diagnosis to the Patient's Clinical Recovery

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Figure 1: A. 3D view of the lesion in the anterior mandible. B. Axial view of the lesion in the anterior mandible. C. Preoperative submental view in the operating room with incision site marking and prior local antisepsis. D. Initial pre-surgical incision. E. Sub-

mental access with blunt dissection of soft tissues. F. Marking of the osteotomy margins of the lesion. G. Different viewing angle with the same surgical purpose during surgery. H. Placement of a locking-type plate to replace the mandibular contour. I. 3D view of the inserted locking-type plate in the postoperative period. J. Axial view of the locking-type plate inserted in the mandibular region postoperatively. K. Submental view of the suture performed 7 days after the surgical procedure with a not fully healed fistula. L. Postoperative plate exposure in the inferior mandibular region. M. Replacement procedure of the locking-type plate and new mobilization of soft tissues. N. 3D view of the new plate placement in the mandibular region. O. Patient remains in postoperative follow-up for 4 months with no complications and excellent healing.

Maxillary Osteonecrosis (ONJ) is a condition characterized by the death of bone tissue in the maxillomandibular region, often associated with the use of antiresorptive medications such as bisphosphonates and denosumab [1]. This condition has become an increasing topic of interest in the dental and medical communities, especially due to the rising prevalence of oncological treatments involving these medications [1,2].

In this context, we report the case of a 73-year-old male patient who developed a significant case of maxillary osteonecrosis secondary to the use of zoledronic acid for the treatment of multiple myeloma. At the time of clinical evaluation, the patient presented with drainage of secretion in the inferior chin region, but without pain. He was treated with the PENTO protocol, according to extensive literature on the subject, along with antibiotic therapy using amoxicillin 500 mg. After 45 days, a hospital surgical procedure was scheduled and performed involving resection of the mandibular symphysis under general anesthesia and intensive postoperative management. After 35 days, the patient presented with exposure of the fixation plate in the inferior region, believed to be due to insufficient traction of the suprahyoid muscles at the time of suturing, which failed to properly cover the plate with muscular tissue (Figure 1A to 10).

An important point to highlight is the presence of an impacted premolar tooth close to the affected region, which was deliberately left in place to avoid triggering new osteonecrotic foci. The patient underwent symptomatic and infection control treatment for two months and was followed up in an outpatient setting. Subsequently, a second surgical intervention was scheduled and performed to replace the plate and remobilize the soft tissues into a more favorable position. The patient has now been under postoperative follow-up for six months without complications and with excellent healing. At the latest visit, the patient was referred to the regional oral and maxillofacial prosthetics service for evaluation of the possibility of fitting a complete denture and restoring masticatory function.

The treatment applied, and the complications observed—such as the exposure of the fixation material—reflect the complexity of ONJ management and underscore the importance of appropriate surgical strategies and rigorous clinical follow-up [2–7]. This case report aims to discuss the therapeutic approaches adopted and their implications for the management of patients with osteonecrosis of the jaws, as well as to highlight the need for a multidisciplinary approach and personalized treatment strategies to optimize recovery and quality of life in affected patients.

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