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THE MEDICATION-RELATED OSTEONECROSIS OF THE JAW PITFALL: A COMPARISON OF RADIOLOGICAL FINDINGS AND SURGICAL EXPERIENCE

SECTION: *5B - Imaging*

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Background. Medication-related osteonecrosis of the jaws (MRONJ) is an adverse drug reaction characterized by the progressive disruption and gradual necrosis of the bone tissue mainly involving the mandibular and/or maxillary bones in patients who have received antiresorptive drugs or some monoclonal antibodies with or without prior radiotherapy. Since its first reported cases in the USA in 2003, this adverse drug reaction has interested scientific and medical community worldwide, sharing experiences, medical or surgical approaches, clinical follow-up and related medicaments and their doses in order to try to understand the specific pathway involved in this unfortunate complication, find the more adequate therapy and cure or avoid this fearsome collateral damage.
Patients and methods. This retrospective study aims to highlight the difference between radiological findings and surgical experience that could represent a very common pitfall, in which medical professional could fall for MRONJ surgical approach. In our experience, we enrolled n=25 patients, from February 2020 to July 2023, affected by MRONJ without distinction of upper or low maxilla, without limitations of dimension of affected bone tissue or specific bone region affected by MRONJ, or differences based on the specific medication and its dose. All the patients performed preoperative CT scan of the facial mass, clinical evaluation, information collection about the prior medical therapy and its doses and frequency. All the patients were classified for staging according SICMF–SIPMO 2020 recommendations outline three stages based on clinical and radiological findings. All the patients performed conservative treatment before surgical procedures. All the patients underwent surgery with a surgical planning based on the pre-operative CT scan. All the patients considered had a difference between radiological definition of healthy bone tissue and affected bone of 0,8 cm ± 2,7 cm.
Results The concept of surgical limit compared to radiological finding could represent a misleading pitfall for the surgeon who opts to treat a patient with osteonecrosis as a matter of fact the limits of resected bone tissue were determined by intraoperative observation of bleeding margins. Our comparation was determined by measuring the dimensions of the histological sample and between the radiological sample according to the radiological margins of affected bones.
Conclusions. According to our experience, we strictly recommend to all the Head and neck surgeons who constantly try to find the most adequate and radical approach to medication-related osteonecrosis of the jaws to always aim to achieve safe and healthy margins of the affected bone, considering the vital and bleeding margins as the "correct limit" of the excision, considering that the radiological finding represent a useful but also variable esteem of the dimension of affected maxillary bone.

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