

# ONJ UPDATE 2024

## Torino, 24 febbraio 2024

### Abstract Submission FORM

**METASTASES OCCURRING WITHIN MRONJ LESIONS IN ONCOLOGIC PATIENTS: A RETROSPECTIVE STUDY ON AN UNCOMMON HISTOLOGICAL FINDING**

SECTION: 2B

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**Background:** In oncologic patients, medication-related osteonecrosis of the jaws (MRONJ) can occur because of the antiresorptive and antiangiogenic therapies, such as Zoledronate, Clodronate, Denosumab, and Bevacizumab. Anyway, several tumors show a tendency to metastasize in the jaws, thus inducing lesions resembling MRONJ clinically and radiologically. Therefore, the current study aims to investigate the presence of bone metastases in MRONJ lesions.

**Methods:** The authors carried out the retrospective study using the institutional database of MRONJ referred to the unit of Odontostomatology of the Aldo Moro University of Bari. The authors included oncologic patients who received concomitant histological diagnoses of metastases and MRONJ considering the study period from 2004 to 2023. All patients underwent clinical examination, panoramic radiogram, multi-slice computed tomography with 3D reconstruction of the facial skull, and anesthesiologic assessment before surgery. The preoperative antibiotic therapy involved three consecutive cycles of 1 g of ceftriaxone and 1 g of metronidazole per day for six days with a drug-free period of fifteen days after each cycle. Before surgery, the authors established a three-to-six-month drug holiday depending on drugs administered in agreement with the specialists. All oncologic patients underwent surgery during the chemotherapy-free period. The authors staged the MRONJ lesions according to both the dimensional staging system and SICMF-SIPMO staging system and treated stage I lesions with surgical debridement, stage II with open-access bone surgery, and stage III with extensive bone resection. The authors sent the resected bone samples for anatomopathological examination. When necessary, immunohistochemical examination was carried out considering patients' primary tumor. The patients underwent clinical follow-up monthly; in addition, the patients underwent panoramic radiograms every three months and computed tomography every six months. The authors conducted descriptive statistical analysis considering all inclusion criteria and the follow-up.

**Results:** During the study period, 360 patients showing 455 MRONJ lesions came to the authors' attention. The authors included: seven women with metastatic ductal breast cancer, one woman with lung cancer and a man with prostatic cancer, with a mean age of  $55,0 \pm 19,9$  years. They had eleven lesions that contained metastases of cancers occurred in the molar region of the mandible; four lesions were stage II, six were stage III, and one developed a stage III in the postoperative site of a previous stage I. All patients received multiple antiresorptive drug therapies with denosumab, clodronate or zoledronate; two patients also received trastuzumab. The mean follow-up period was  $28,0 \pm 6,9$  months, and one patient developed a fracture after surgical treatment that healed after a year.

**Conclusions:** The authors' experience suggests that metastases within MRONJ lesions are uncommon occurrences in oncologic patients. The histological examination of the resected bone is mandatory to achieve the diagnosis and to manage other therapeutic strategies for patients.

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