

ONJ UPDATE 2024

Torino, 24 febbraio 2024

Abstract Submission FORM

PREVENTION, SCREENING AND DIAGNOSIS OF MRONJ: UPDATE OF MULTIDISCIPLINARY EXPERIENCE AT ALESSANDRIA HOSPITAL.

SECTION: 1B

Fasciolo Antonella^{1,2}, Brigo Paola^{2,3}, Rossetti Giorgia^{2,4}, Massarino Costanza⁴, Tartara Daniela^{2,3}, Ferrero Elisabetta^{2,3}, Monaco Federico^{2,5}, *Fusco Vittorio^{2,4,6}

AFFILIATION:

1. Maxillofacial Unit
2. MRONJ Multidisciplinary Team
3. Day Hospital for Oncology and Hematology, nurse staff
4. Research and Innovation Department DAIRIAlessandria, Italy Hematology Unit
5. Hematology Unit,
6. Oncology Unit

Azienda Ospedaliera-Universitaria "SS Antonio e Biagio e Cesare Arrigo", Alessandria, Italy

Background. Patients at risk of Medication-Related Osteonecrosis of the Jaw (MRONJ) include mostly cancer and myeloma patients receiving antiresorptive treatments (bisphosphonates or denosumab) with/without biological agents, but also patients with osteoporosis and other non-malignant diseases¹. Since 2006, a MRONJ Multidisciplinary Team was established in Alessandria Hospital, including: maxillofacial surgeons /dentists, oncologists, hematologists, nurses, radiologists, nuclear medicine and other medicine specialists, data managers¹. So called "preventive" measures (aimed to risk reduction) before antiresorptive treatment (i.e., dental visit; dental panoramic Rx; if needed: teeth extractions, dental care, and denture care) and during therapy have been planned, according to national recommendations². Furthermore other patients received care at our centre if: a) MRONJ was suspected after treatment for cancer and myeloma in neighboring hospitals, or b) MRONJ was suspected among osteoporosis patients in the provincial territory by private practice dentists or physicians..

Patients and methods. We updated our data, published on 2021³, about more than 900 patients observed by members of the MRONJ Team, analyzing characteristics of cases confirmed as MRONJ according to Italian (SIPMO-SICMF) definition and recommendations²

Results. We followed 130 cases of confirmed MRONJ, found among patients receiving treatment with bisphosphonates and/or denosumab and/or antiangiogenics drugs, after both clinical and imaging evaluation. Second-level imaging was mostly based on Computed Tomography (CT scan) and occasionally included PET-TC or nuclear medicine exams (bone scan and/or SPECT). Sex: 48 M, 82 F. Median age at MRONJ diagnosis time: 69 years (range 45-90). Status at January 2024: 45 alive, 85 dead. Patient disease: 43 (33.1%) breast cancer / 24 (18.4%) prostate cancer / 14 (10.7%) myeloma / 8 (6.1%) renal cell cancer / 6 (4.6%) lung cancer / 7 (5.4%) other cancers / 28 (21.5%) osteoporosis and other non malignant disorders.

The only drug involved in the MRONJ development was: zoledronic acid in 56, denosumab (monthly 120 mg) in 18, denosumab (60 mg every 6 months) in 4, pamidronate in 9, ibandronate (several dosages and schedules) in 6, alendronate in 9, antiangiogenics alone in 4 (2 bevacizumab, 2 sunitinib). Drug sequences of bisphosphonates, with/out denosumab (high or low dose), was reported in remaining cases.

Conclusions. In recent years we observed a slight increase of MRONJ cases observed in:

- a) patients with osteoporosis and other non- malignant diseases (i.e., rheumatic, autoimmune, etc.), mostly receiving "low dose" bisphosphonates and/or "low dose" denosumab (60 mg every 6 months), and
- b) patients receiving denosumab, both at "high dose" (120 mg) and "low dose" (60 mg).

Even if the individual risk is very different along their drug history (5-20% for metastatic cancer patients and myeloma patients, with higher values in long survivors, *versus* less than 1% in patients receiving "low dose" drugs), the large number of osteoporosis patients treated for several years justifies the observed increase.

REFERENCES:

1. Bedogni et al Italian position paper (SIPMO-SICMF) on medication-related osteonecrosis of the jaw (MRONJ). *Oral Diseases* 2024 at <https://doi.org/10.1111/odi.14887>
2. Campisi et al. Raccomandazioni clinico-terapeutiche sull'osteonecrosi delle ossa mascellari (ONJ) farmaco-relata e sua prevenzione at https://www.sipmo.it/wp-content/uploads/2020/08/SICMF-SIPMO-2.0_web-con-cover-2020.pdf
3. Fasciolo et al *Qeios* <https://www.qeios.com/read/0QK8E2>

Il titolo non deve essere superiore a 130 caratteri (spazi inclusi); l'abstract deve essere scritto in Times New Roman carattere 10. Numero minimo di parole: 400 inclusi titoli, autori e affiliazioni; numero massimo di parole: 600 inclusi titoli, autori e affiliazioni. Inserire al massimo 3 note bibliografiche. L'abstract (tutto in inglese titolo e testo) deve essere contenuto all'interno della prima pagina del form.