

ONJ UPDATE 2024

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Abstract Submission FORM

REPORT OF 74 MRONJ CASES OVER 5-YEARS OBSERVATION, 2019-2023

SECTION: *IB*

M. Facchinetti*¹, M. Almici¹, S. Negrini², C. Tian², L. Visconti¹, A. Castellani², E. Audino¹, S. Salgarello¹

Dental School of Brescia, Brescia, Italy¹; Department of Maxillofacial Surgery, Spedali Civili Brescia, Brescia, Italy²

Aim: Report of the ONJ cases that accessed to the Dental School of Brixia from January 2019 to December 2023.

Methods: After a retrospective research and analysis of each of the 74 cases of ONJ, a specific dataset has been compiled recording drug and period of taking, pathology, cause of ONJ, treatment, staging and recurrence of ONJs.

Results: According to the literature, the 64,9% of the ONJs were seen in women and 35,1% in men. The drugs involved, in order of highest risk of MRONJ, were: zoledronic acid (37,8%), denosumab 120mg-monthly (31,1%), alendronic acid (18,9%), denosumab 60mg-half yearly (6,8%), ibandronic acid (2,7%), unknown (2,7%). In particular, the drugs were so distributed: the 33% of women took denosumab 120mg-monthly, followed by 25% zoledronic acid and 25% alendronic acid, while the 62% of men took zoledronic acid, followed by 27% denosumab 120mg-monthly and 8% alendronic acid.

The drugs were prescribed for: multiple myeloma (23%), carcinoma (50%) and osteoporosis (27%).

The causes of ONJ observed were: 35% decubitus, 32% tooth extractions, 12% perimplantitis followed by spontaneous (8%) and periodontal diseases (6%).

ONJs were divided in different stages: I, II, III. The stage was analyzed in relation to the drug taken: according to the literature, the highest stage (III observed in 31% of the ONJs) was related to the assumption of zoledronic acid and denosumab 120-monthly. Both of them were also involved in stages I-II (in higher percentages), while denosumab 60mg-half year determined only 6,8% of the ONJs, at stages I-II (low entity ONJs). Alendronic acid was related to all stages.

53% of the ONJs were observed in patients still under antiresorptive treatment at the moment of the diagnosis, while the 30% had stopped treatment since less than one year. Most of them (50%) assumed the treatment for 1-5years (of which 49% zoledronic acid, 32% denosumab 120-monthly, 11% denosumab 60-half year and 8% alendronic acid). In addition to this, 16% of the patients took the treatment for more than 10 years (mostly alendronic acid), 11% for 1 year or less (mostly zoledronic acid) and 8% for 5-10 years (mostly zoledronic acid). It was impossible to detect the treatment duration in 15% of the patients (mostly denosumab 120mg-monthly).

For statistical analysis, ONJ's treatments were divided into conservative and surgical: surgical treatment (39%), medical therapy with periodic controls (8%), only periodic controls (12%), maxillofacial surgery (28%), hyperbaric chamber (4%). 5% of the patients did not undergo any treatment because of their systemic conditions.

We detected also 12% ONJ recurrences of local and maxillofacial surgical treatment.

3 cases out of 74 were patients followed by us throughout the primary and secondary prevention phase, while all the other cases are referred patients.

Conclusions: The data are consistent with the incidences found in the literature. We consider it possible to reduce the ONJ event in patients under denosumab 60mg-half yearly treatment with a correct drug modulation. It is also possible to minimize the decubitus percentage with a correct follow up of the edentulous patient.

From our experience, a better management of ONJ cases is allowed by a constant and close collaboration with the maxillofacial department.

1. Campisi G, Bedogni A, Fusco V. "Raccomandazioni clinico-terapeutiche sull'osteonecrosi delle ossa mascellari (ONJ) farmacorelatata e sua prevenzione" (Versione 2.0; Luglio 2020)
2. Mensi M, Audino E, Scotti E et al. "MRONJ: comparison between two surgical approaches". Dental Cadmos . 2021; 89(02):130