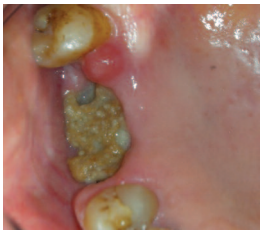
Osteonecrosis of the jaw after long-term oral bisphosphonates, followed by short-term denosumab treatment for osteoporosis: a case report



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Bisphosphonates and denosumab are antiresoptive agents and are mainly used for management of metastatic bone cancer, osteoporosis and other diseases. Bisphosphonates (BP) can reduce skeletal related events (SRE) by 30-50%[1]; denosumab (D) has been found even more effective than BP[2]. BP and D have been both associated to osteonecrosis of the jaw (ONJ).
We report a case of an osteoporotic woman (62 yrs), complaining maxillary intense pain after a recent tooth molar extraction, observed in July 2013 at our centre. She mentioned previous treatments with monthly ibandronate (Bonviva ® 150 mg) per os (from January 2003 to April 2010), risedronate (35 mg weekly, from May 2010 to May 2012) and two administrations (in August 2012 and in January 2013) of denosumab (Prolia ®, 60 mg sc every 6 months).
Of note, she also reported a previous incisor extraction that was performed in July 2012 (before denosumab) without ONJ onset.
No further systemic or local risk factors were referred. Intraorally, bone exposure of right emimaxilla was present; osteolysis area was observed in in CT scans. According to Bedogni et al.[3], the ONJ case was classified as stage II B. Medical therapy (ampicillin/sulbactam im 2 times/die, metronidazole per os 3 times/die, chlorhexidine 0.2% mouth rinses) was administered. One week later, the patient was asymptomatic but within the same stage (IIA); she was referred to Oral and Maxillofacial surgery for surgical management.

References

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3. Bedogni A, et al. Learning from experience. Proposal of a refined definition and staging system for bisphosphonate-related osteonecrosis of the jaw (BRONJ). Oral Dis. 2012; 18(6):621-3.