

Treatment of osteonecrosis of the jaw (ONJ) by medical ozone gas insufflation. A case report

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ABSTRACT

Osteonecrosis of the jaw (ONJ) is an adverse event reported in patients receiving cancer treatment, especially bisphosphonates and denosumab. A patient with multiple myeloma who underwent up to 22 intravenous zoledronic acid infusions without previous dental examination developed a devastating ONJ lesion in the right horizontal mandibular ramus. He was treated with local ozone gas applications every third day by means of a special bell to avoid O₃ diffusion. Azithromycin 500 mg/day was administered for 10 days prior to the O₃ applications. O₃ therapy resulted in sequestration of the necrotic bone after a median of 15 applications, following which surgery was necessary to remove it. Interestingly, removal was possible without the resection of the healthy mandible edge because of the presence of the bone sequestrum. Medical O₃ gas administration was effective and safe in a patient treated with bisphosphonates who developed a >2.5 cm ONJ lesion. Future research is needed to demonstrate the efficacy and tolerability of such treatment in a larger number of patients.

Key words: osteonecrosis of the jaw (ONJ), zoledronic acid, medical ozone gas insufflation.

The procedures followed in this case report were reviewed and approved by the ethics committee of the National Cancer Institute of Milan and are in accordance with the ethical standards of the Helsinki Declaration (1964, amended in 1975, 1983, 1989, 1996 and 2000) of the World Medical Association.

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