

ONJ UPDATE 2024

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MANAGEMENT OF MRONJ PATIENTS WITH OZONE INFILTRATION AND PIEZOELECTRIC SURGERY: UPDATE OF A 29 PATIENT CASE SERIES WITH STAGE 1 TO 3 MRONJ

SECTION: 4B

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Background. Medication-related osteonecrosis of the jaws has been reported to be associated with bisphosphonate and RANKL inhibitor medications. This prospective clinical study aimed to assess the outcomes of pre-operative ozone infiltration therapy in Stage 1 to Stage 3 MRONJ patients.

Patients and methods. The treatment protocol was designed as 20 applications ozone infiltration therapy followed by surgical interventions of necrotic tissue debridement using piezoelectric surgery instruments. The evaluation of the results based on the clinical and radiologic specifications considering the necrotic lesion healing. The study included 37 lesions in 35 patients. The mean follow-up was 23.6 months.

Results. 31 lesions out of 37 healed. The outcomes were not affected by any variables such as gender, age, type of pharmacological treatment, lesion location, and MRONJ staging. The statistically significant results were found among the clinical condition of the patients ($p=0.01$) and administration route of medications ($p=0.004$). Healing was significantly less in patients that received intra-vascular administrations. Clinical conditions of the patients were divided as osteoporosis, oncologic, and arthritis. Significantly better results were obtained in osteoporosis patients. 40 % of the population experienced spontaneous expulsion with signs of improvements and the surgical interventions were canceled. According to the results, total healing of MRONJ lesions was seen in 82.8 % patients (83.7 % lesions).

Conclusions. Ozone therapy and debridement with Piezoelectric surgery can be considered as a safe and beneficial adjunctive treatment alternative for osteonecrosis lesions in cases of Stage 1 to Stage 3 MRONJ patients.

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