Abstract Submission FORM

EFFICACY OF ADJUNCTIVE PDT IN THE TREATMENT OF A PARTICULAR PRESENTATION OF MRONJ: A CASE REPORT

SECTION: *2C*

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Background.
Drug-related osteonecrosis of the jaw (MRONJ) is an adverse event in patients with osteometabolic and/or oncological disease treated with antiresorptive (pAR) drugs including anti-RANKL antibodies (e.g., denosumab) and nitrogen-containing bisphosphonates (N- BP; e.g., zoledronic acid), or angiogenesis inhibitors (AgI). We present a case of MRONJ in a patient suffering from systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA) which resolved thanks to antibiotic therapy (AT) and photodynamic therapy (PDT).

Patients and methods.
A 48-year-old patient comes to our attention with history of SLE and RA from several years treated with monoclonal antibodies (Tolicizumab) since 2015 and bisphosphonate for 24 months. The patient has been taking deltacortene 25 mg per day for 25 years. He has never undergone radiation therapy. On intraoral physical examination, a bony exposure of approximately 1,5 cm in diameter is found in the upper right hemimaxillary bone. In the lower arch, white reticular lesions attributable to SLE are observed. In addition, the patient is suffering from periodontitis. The patient underwent AT according to ministerial guidelines (amoxicillin + clavulanic acid and metronidazole), for 4 weeks during which the elements with a poor prognosis (mobility 3) were extracted.

Results.
During the first week of AT, the bone exposure area was treated with PDT based on Curcumin + 3% hydrogen peroxide, activated by a diode lamp at 460 nm wavelength and 7 watts of power. 2 sessions of 5 minutes were performed. 1 week after PDT and 3 weeks after the start of AT there is a total re-epithelialization of the osteonecrotic area with a significant reduction in pain revealed by the patient.

Conclusions.
In the literature, emerges that PDT is increasingly performed in combination with other therapeutic options with excellent clinical outcomes. The most important aspect at a clinical level is the absence of adverse effects, due to the ability of the photosensitizer to bind and induce apoptosis of only damaged cells. This is important in immunosuppressed patients who are undergoing other drug therapies, thus improving their lifestyle.
Randomized clinical trials should be conducted so that the benefit of PDT in the treatment of MRONJ can be demonstrated with a greater scientific basis.

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