RHEUMATOID ARTHRITIS AND ITS TREATMENT: POTENTIAL RISK FACTORS OF OSTEONECROSIS OF THE JAW BESIDES BISPHOSPHONATES

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BACKGROUND

Osteonecrosis of the jaw (ONJ) is a rare complication of bisphosphonate therapy. Its pathogenesis is still unclear although some risk factors have been recognized. Of these, rheumatoid arthritis (RA) and glucocorticoid use has been hypothesized as a potential risk factor for developing ONJ. Other risk factors for developing ONJ while taking bisphosphonates include IV administration, cancer and anticancer therapy, dose and duration of exposure, dental extractions, dental implants, poorly fitting dentures, smoking, diabetes, preexisting dental disease and also tocilizumab use.

CASE REPORT

In this work, we report a clinical case of ONJ in a 60 years white old woman affected by a severe rheumatoid arthritis (RA) since the age of 32. She was also diagnosis of glucocorticoid-induced osteoporosis treated with zoledronic acid in the last two years (5 mg in 2019 and 4 mg in 2020). In March 2021, she was using leflunomide 20 mg/day, prednisone 5 mg/day and tocilizumab for the RA treatment when she reported the onset of a painful nodular lesion in the right mandibular region, with progressive growth in the last month. There was no drainage in the oral cavity, and she reported the last dental procedure 1 year ago with a pin implant on the contralateral side of the skin lesion due to total mandibular edentulism. Mandibular and neck tomography was performed showing an area of cortical irregularity in the hemibody of the right mandible, with a periosteal reaction in this topography compatible with an inflammatory/infectious process (osteomyelitis) superimposed on mandibular osteonecrosis, with cutaneous fistula and focal bone exposure. The patient was treated with intravenous ceftriaxone and oxacillin and later, oral amoxicillin-clavulanate. Disease-modifying antirheumatic drug (DMARD) was switched to sulfasalazine for hypogammaglobulinemia with leflunomide, and tocilizumab was stopped. The use of bisphosphonates was also discontinued.

CONCLUSION

The main risk factors for ONJ seem to be the use of high-dose intravenous bisphosphonate associated with long-term trauma. Besides the bisphosphonates, other potential risk factors, acting as synergistic effects, have been described include RA, glucocorticoid use and also tocilizumab. This paper brings to light the necessity for rheumatologists to be aware of the potential risk for their patients to develop ONJ and to work together with dentists for the prevention and early detection of the lesions.

KEYWORDS

Rheumatoid arthritis, Osteoporosis, Bisphosphonates, Osteonecrosis of the jaw, Tocilizumab.