ONJ UPDATE 2024
Torino, 24 febbraio 2024

Abstract Submission FORM

THE "STRANGE" CASE OF ONJ OCCURRING AFTER A SINGLE 60 MG DOSE OF DENOSUMAB, IN A PATIENT PREVIOUSLY TREATED WITH ZOLEDRONATE

SECTION: *2A*

Stella D'Oronzo*[1,2], Claudia D'Addario[1,2], Camillo Porta[1,2].

AFFILIATION:

1. Interdisciplinary Department of Medicine, University of Bari Aldo Moro.
2. Medical Oncology Division, University Hospital Policlinico of Bari.

Background. Osteonecrosis of the jaw (ONJ) is a serious complication of treatment with bone modifying agents (BMA), commonly used in the clinical practice to prevent skeletal-related events (SREs) in patients with bone metastases [1]. The risk of developing ONJ in patients receiving BMA for osteoporosis is much lower, ranging from 0.01% to 0.06% [2], although several predisposing local and systemic factor may promote this phenomenon [3].

Case description. We report the case of a class III obese (BMI 43.72 Kg/m^2) 64-year-old woman, who came to our Institution in 2022, attending the "Osteoncology" outpatient clinic. In 2006, the patient had received a diagnosis of a left T2N0M0 breast cancer (ER$^+$, PgR$^+$, Her2$^-$), for which she had undergone conservative surgery and irradiation (QUART), followed by adjuvant chemotherapy and hormone treatment with Tamoxifen for 5 years. In 2012, a bone scan had revealed bone metastases in the hip and ribs, for which she had started aromatase inhibitors (stopped after 5 years) and 4 mg zoledronate, received every 4 weeks for 2 years. After that, the patient had discontinued regular oncological follow-up.

In 2018, she was diagnosed with acute myocardial infarction, complicated by ventricular septal rupture, that was successfully surgically repaired.

In 2022, the patient experienced a pathological fracture at the right femur, after which a whole-body CT and a bone scan were performed. No new distant lesions were identified by the CT, while the bone scan showed a moderate uptake of 99mTc in the site of fracture. A severe osteoporosis was revealed by Dual-Energy X-Ray Absorptiometry. The patient underwent orthopedic surgery, during which a biopsy of the femoral lesion was performed; surprisingly, histological examination of the sample described the absence of tumor cells. Blood tests showed mild hypercalcemia and increased PTH levels, for which the patient was referred to an Endocrinologist. Following this consultation, a Sestamibi parathyroid scan was performed that revealed a right parathyroid adenoma. The patient was then referred to a General Surgeon but her risk of intra-/post-operative complications was defined "high", due to her cardiac comorbidities; as a consequence, the patient refused the proposed surgery.

A conservative therapeutic approach was thus proposed, including treatment with 6-monthly 60 mg denosumab, after orthopantomogram (OPT) and dental visit that excluded contraindications to the BMA. The patient received her first dose of denosumab in April 2023 but, two months later, she complained severe pain in the right half of the mandible; an OPT and a CT scan were performed, revealing the onset of a stage I ONJ.

Denosumab was discontinued and the ONJ was managed by a medical and conservative approach, until complete healing. Due to her high risk of fracture, in October 2023 she received the second dose of denosumab, undergoing close dental follow-up that, to date, has not revealed relapse of the ONJ nor new lesions.

Conclusions. Multidisciplinary management of patients treated with BMA is necessary to stratify their risk of ONJ and set-up appropriate follow-up. Early diagnosis of ONJ could avoid surgical therapeutic management, especially in patients at high risk of complications.

REFERENCES

1. Coleman R et al, Annals of Oncology 2020;
2. Anastasilakis AD et al, J Clin Endocrinol Metab 2022;
3. Bedogni A et al, Oral Diseases 2024.

Il titolo non deve essere superiore a 130 caratteri (spazi inclusi); l'abstract deve essere scritto in Times New Roman carattere 10. Numero minimo di parole: 400 inclusi titoli, autori e affiliazioni; numero massimo di parole: 600 inclusi titoli, autori e affiliazioni. Inserire al massimo 3 note bibliografiche. L'abstract (tutto in inglese titolo e testo) deve essere contenuto all'interno della prima pagina del form.