



Osteolytic jaw lesion in metastatic breast cancer: not always metastases

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A 64-year-old woman with a personal history of breast carcinoma and multiple bone metastases to the skull, sternum, and sacrum was treated with an aromatase inhibitor. Due to her bone pain, we started intravenous zoledronic acid therapy in December 2004: 4 mg was administered every 28 days. The pain was successfully controlled a few months later, and she ceased taking analgesics.

During this treatment period she didn't have any complications related to the bone metastases. However, after 16 drug infusions, she consulted us in October 2006 because of pain at the left lower jawbone.

The CT scan (Figure 1) showed an osteolytic lesion with central and peripheral areas of bone sclerosis. The gammagraphic study (Figure 2) revealed an intense hypercaptation at the left jaw in addition to that known at the skull and spinal column.

Figure 1



Figure 2



What is the diagnosis?

Diagnosis and Discussion

The diagnosis was *osteonecrosis of the jaw* (ONJ) due to the intravenous bisphosphonate treatment—as confirmed after surgical exeresis.

Accumulating evidence reveals that bisphosphonate therapy has a significant effect in preventing skeletal complications in a variety of cancers, and in preventing bone loss resulting from cancer or its therapy. The major risks of bisphosphonate therapy include nephrotoxicity, electrolyte abnormalities, and ONJ.¹

The incidence of ONJ in this population (breast cancer patients receiving intravenous bisphosphonates) is almost 2.5%.² However, with increased recognition of the condition, longer exposure to bisphosphonates, and more follow-up, the reported incidence is likely to increase.³

Management of ONJ is controversial since there is no effective treatment; the most recommended strategy is to simply stop the administration of bisphosphonates, although improvements in the osteonecrosis may not be observed with drug discontinuation as measurable levels of bisphosphonates may persist in bone for up to 12 years after cessation of therapy.⁴

Surgical treatment is usually reserved for refractory cases such as the present one. At present, the treatment modality of choice may be the removal of only symptomatic boney sequestra with minimal disturbance of overlying soft tissues along with topical and systemic antibiotics.³

Our patient has minimal residual jaw pain 1 year after the surgical procedure and cessation of the bisphosphonates.

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