DIAGNOSTIC CHALLENGE

Oral ulceration with mandibular necrosis

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THE CHALLENGE

A 45-year-old woman was referred to the dental emergency clinic at Henry M. Goldman School of Dental Medicine, Boston University, for evaluation and treatment of painful mandibular lesions on the right side. Three weeks earlier, she developed acute pain while eating. The following day, the patient noticed multiple lesions on the right lingual gingiva and sought treatment at her local emergency department; she received a prescription for an acetaminophen and oxycodone solution. However, the pain persisted, and the patient's primary care physician referred her to our clinic.

The extraoral clinical examination revealed no skin findings. The patient's medical history was significant only for hypercholesterolemia, for which she was receiving simvastatin therapy. She denied any history of osteoporosis or canker sores. The patient also denied any history of cancer. One of us (A.V.) performed the clinical examination, which revealed two 0.7-centimeter areas of exposed necrotic bone with surrounding erythema and an ulcerative lesion in the area of the right posterior lingual mandible (Figure 1A). In addition, there was purulent discharge on palpation of the posterior right mandibular region. The clinician obtained a periapical radiograph of the right molar area and a panoramic radiograph, neither of which revealed any significant findings (Figures 1B and 1C). A cone-beam computed tomographic scan of the mandible showed thinning of the lingual cortical plates and possible periosteal reaction with erosive changes (Figure 2).

The clinical examination revealed two 0.7-centimeter areas of exposed necrotic bone with surrounding erythema and an ulcerative lesion in the area of the right posterior lingual mandible. In addition, there was purulent discharge on palpation of the posterior right mandibular region.

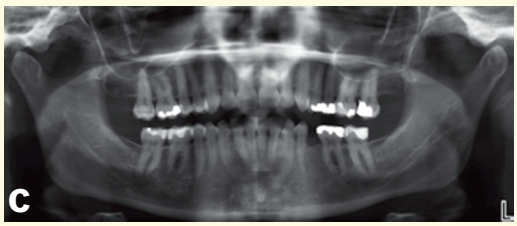
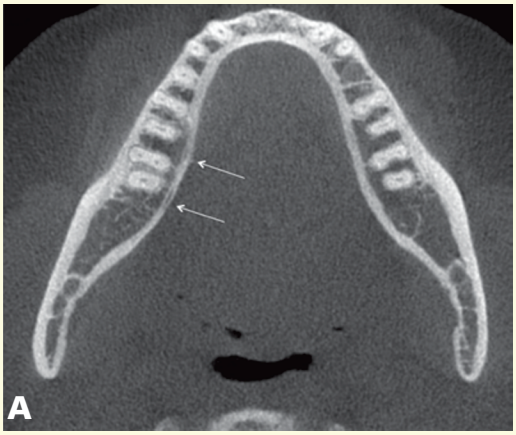
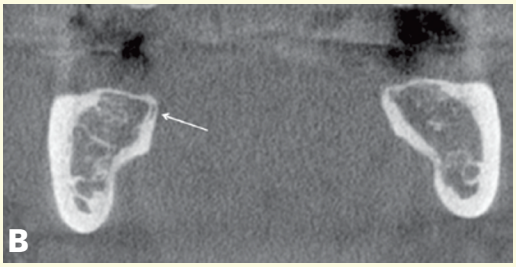


Figure 1. A. Exposed necrotic bone with surrounding erythema and an ulcerative lesion on the right posterior lingual mandibular area. **B.** Periapical radiograph of the right molar area with no significant findings. **C.** Panoramic radiograph with no significant findings.





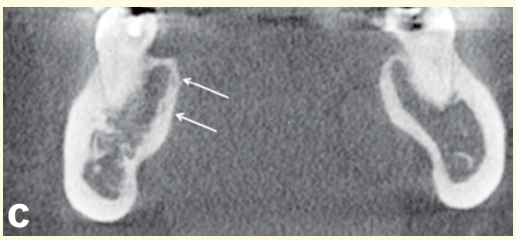


Figure 2. A. Axial cone-beam computed tomographic (CBCT) scan reveals thinning of the lingual cortical plate and a possible periosteal reaction (arrows). **B.** Coronal CBCT scan (distal to tooth no. 30) reveals thinning of the lingual cortical plate and a possible periosteal reaction (arrow). **C.** Coronal CBCT scan demonstrates erosive changes of the lingual cortical plate (arrows).

CAN YOU MAKE THE DIAGNOSIS?

A. osteoradionecrosis
B. idiopathic benign sequestration of the lingual plate of the mandible
C. traumatic sequestration of the lingual plate of the mandible
D. antiresorptive agent-induced osteonecrosis of the jaw
E. gingival squamous cell carcinoma