

[PICTURES IN CLINICAL MEDICINE]

Necrotizing Otitis Externa

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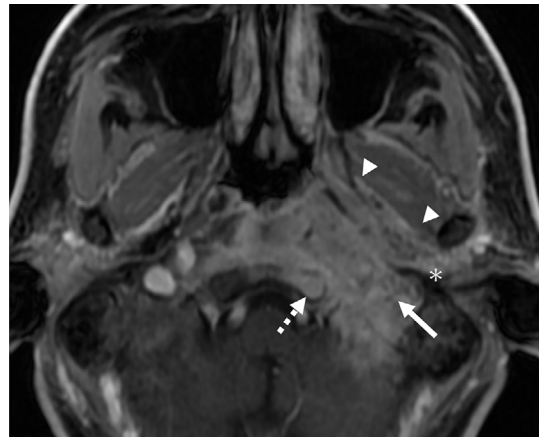
Key words: diabetes mellitus, necrotizing otitis externa, pseudomonas aeruginosa

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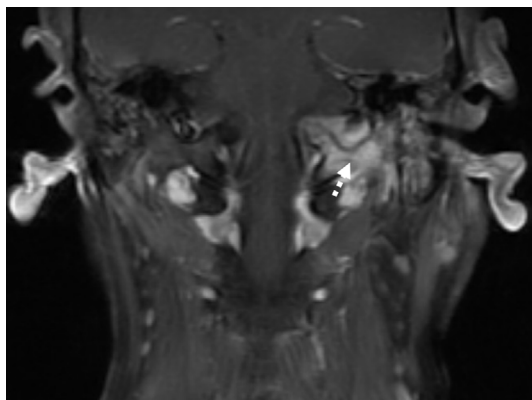
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Picture 1.



Picture 2.



Picture 3.

A 58-year-old man with diabetes mellitus presented to our institution complaining of left-sided headache. He had initially noticed left-side otalgia and otorrhea four months prior to admission. This was followed by left-side cranial nerve symptoms, with three months of hearing loss and one month of dysphagia, hoarseness, and facial pain. A physical

examination revealed granulations in the external auditory canal (EAC). Computed tomography with contrast (Picture 1) showed a heterogeneous mass in the nasopharyngeal area involving the jugular foramen (white arrows) with bony erosion of the clivus (black arrows). Contrast-enhanced fat-suppressed T1-weighted magnetic resonance imaging (Picture 2, 3) showed irregular abnormal enhancement at the skull base that invaded the left external auditory canal (asterisk), internal carotid artery and vein (arrow), left lateral pterygoid muscle (arrowheads), and the atlas on the left side (dotted arrows). Histopathology results of the biopsy were unremarkable; however, a culture of ear secretions was positive for *Pseudomonas aeruginosa*. Necrotizing otitis externa is an invasive infection of the EAC, mastoid, and skull base that typically occurs in patients with diabetes mellitus (1). *Pseudomonas aeruginosa* is the most common causative agent, followed by *Staphylococcus aureus*, other Gram-negative bacteria, *Aspergillus* species, and *Candida* species (2). His symptoms resolved with six weeks of intravenous (Cefepime) and subsequent oral antipseudomonal antibiotic agents (Ciprofloxacin) for one year.

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