Amer A. Alkhatib, MD
Modushudan Bhattacharjee, MD

From the Department of Internal Medicine, The University of Texas Health Science Center, Houston, TX.

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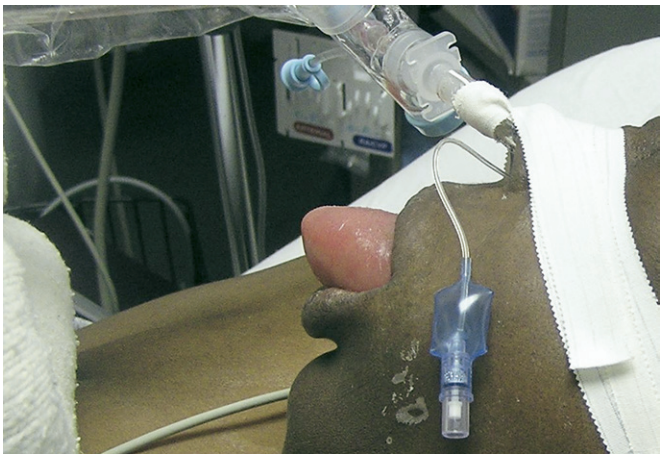

Figure 1. Extensive lingual swelling as a result of fosinopril.

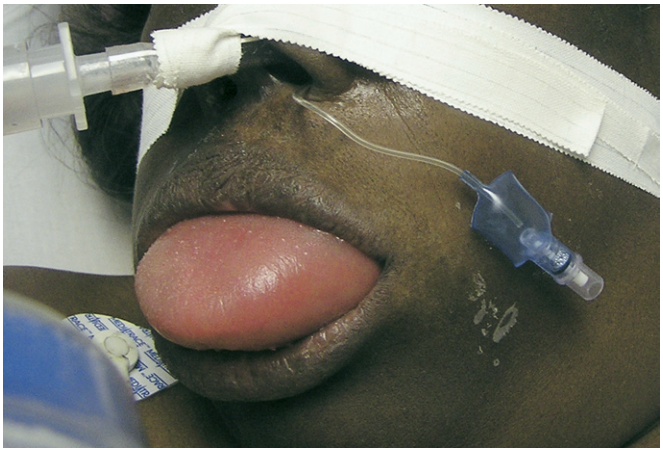

Figure 2. Extensive lingual swelling as a result of fosinopril. Used with permission of Amer A. Alkhatib, MD, Department of Internal Medicine, The University of Texas Health Science Center, Houston, TX.

[Ann Emerg Med. 2007;49:144.]

A 61-year-old black woman with hypertension and renal insufficiency presented with a 4-hour history of progressive tongue swelling, dyspnea, and dysphagia. Seven days earlier, she began taking fosinopril for better blood pressure control. On examination, she was hypertensive (blood pressure 196/114 mm Hg), tachypneic (respiratory rate 26 breaths/min), afebrile (temperature 98.5°F [36.9°C]), and drooling. She had swollen tongue and lips (Figures 1 and 2). Otherwise, her examination was unremarkable. The patient was intubated nasally and treated with diphenhydramine, famotidine, and dexamethasone. Fosinopril was discontinued. Her laboratory results were significant for normal complements level (C2 and C4), C1 esterase inhibitor concentration, and C1 esterase activity. During 2 days, the patient's tongue regressed, and she was later extubated successfully.

For the diagnosis and teaching points, see page 163.
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DIAGNOSIS:

Angioedema as a result of angiotensin-converting enzyme inhibitor. The incidence of angiotensin-converting enzyme inhibitor–induced angioedema is less than 1% (0.68% with enalapril). Major risk factors include black race, history of drug rash, history of seasonal allergy, age greater than 65 years, and current seasonal allergies.[1] It may occur anytime during the course of treatment with the medication, but the risk is highest when the medication is initiated, especially during the first week.[1,2] Most common sites involved with this type of angioedema are lips and face. Other sites are tongue, neck, and eyelids. Patients usually present with facial swelling, flushing, dysphagia, speech difficulty, burning of eyes, stridor, dyspnea, hoarseness, urticaria, drooling, and increased salivation. Half of the patients with angioedema as a result of angiotensin-converting enzyme inhibitor do not require any treatment except discontinuing the offending medication. The other half requires antihistamine, corticosteroid, or epinephrine.[1]

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