HISTORY

A 29-year-old woman presents to your office with bilateral facial swelling (A). She had seen her dentist 3 weeks earlier and had sustained a small laceration to the buccal mucosa during a routine cleaning. Two days later, facial edema developed, which was localized to her parotid glands.

She reports no odontalgia, fever, nausea, vomiting, drooling, otalgia, or rhinorrhea. She is a smoker but denies any alcohol consumption or current illicit drug use. Her medical history includes hematemesis, asthma, epilepsy, type 2 diabetes mellitus, and bulimia nervosa; she has a remote history of intravenous drug abuse.

PHYSICAL EXAMINATION

The patient is alert and oriented and is in no distress. Blood pressure is 113/74 mm Hg; heart rate, 87 beats per minute; respiration rate, 16 breaths per minute; temperature, 36.8°C (98.2°F); and oxygen saturation, 100% on room air. The oropharynx is clear, without plaques or exudates. There is neither sinus tenderness nor cervical adenopathy. Palpation reveals bilateral parotid edema and tenderness; no erythema is noted. The remainder of the physical examination is unremarkable.

IMAGING STUDIES

A CT scan of the face is performed the following day and demonstrates reactive nodes in the submandibular and internal jugular chain. No discrete abscess is identified. The submandibular glands are symmetrical, and the remaining neck structures are normal (B and C).

WHAT’S YOUR DIAGNOSIS?

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This patient’s symptoms were attributed to bulimia nervosa, an eating disorder characterized by binge eating followed by purging. In addition to self-induced vomiting, some patients use laxatives or perform vigorous exercise in attempts to lose weight. Patients who have bulimia commonly present with tachycardia, hypotension, xerosis, parotid gland swelling, and erosion of dental enamel.1

The exact pathophysiology behind parotid gland swelling is uncertain; however, it is thought that potassium may play a role. Persistent self-induced vomiting is believed to cause hypokalemia. A case study showed that once parotid swelling was reversed with potassium supplementation, the swelling continued to diminish while the patient underwent psychotherapy.2

OUTCOME OF THIS CASE

This patient was initially treated with oral amoxicillin/clavulanate, and her facial swelling resolved over the next week. Two days later she phoned her physician’s office and complained of recurring facial swelling, which had now extended to the bilateral periorbital areas, in addition to discomfort with movement of both eyes, loss of taste, numbness of her tongue, and diffuse body burning. She denied fever, chills, cough, sore throat, rhinorrhea, congestion, otalgia, nausea, diarrhea, constipation, or a rash.

She was admitted to the hospital, where an otolaryngology consultation was obtained. Intravenous clindamycin was started, and a repeated CT scan of the face was done. The new scan showed no evidence of inflammatory changes or fluid collections and normal bone windows; bilateral reactive jugulodigastric nodes were noted. After 3 days of intravenous antibiotics, her facial swelling and secondary symptoms resolved. She was discharged on oral clindamycin and had an uneventful course with a subsequent follow-up visit 3 weeks later.

DIFFERENTIAL DIAGNOSIS

Infectious diseases. Since the mumps vaccine was introduced in the United States in 1967, mumps has become uncommon. This highly infectious disease is spread via respiratory droplets, contact, and fomites. Mumps presents initially with low-grade fever, malaise, headache, anorexia, and otalgia. About 95% of patients have painful parotitis; it usually starts unilaterally then progresses bilaterally over 2 to 3 days. Parotid glands are painful for only about 3 days. Human immunodeficiency virus infection can result in parotid enlargement caused by solid or cystic lymphoepithelial lesions.

Inflammatory disorders. Sarcoidosis primarily affects the lungs, but this granulomatous disease has many other systemic effects. Tuberculosis is caused by Mycobacterium tuberculosis infection of the lungs; presenting signs and symptoms are fever, cough, dyspnea, pleuritic chest pain, hemoptysis, and night sweats. Leprosy, also known as Hansen’s disease, is caused by Mycobacterium leprae and involves the skin and peripheral nerves.

Sarcoidosis, tuberculosis, and leprosy can all result in bilateral enlargement and decreased function of the salivary glands.3 Biopsy is needed to differentiate this process from Sjogren’s syndrome.

Autoimmune disorders. Sjogren’s syndrome is a chronic inflammatory disorder characterized by diminished lacrimal and salivary gland function. Bilateral parotitis can gradually develop. In patients with Sjogren’s syndrome, the glands are not tender to mildly tender on palpation. The lesion is initially benign but may progress to lymphoma. Patients with Sjogren’s syndrome may also exhibit speech and swallowing impairments secondary to salivary hypofunction.

REFERENCES:

ANSWER: Bulimia Nervosa