A 24-year-old woman presents to your office complaining of “pus” on her right tonsil. She noticed this while brushing her teeth 2 days earlier.

HISTORY

The patient denies any recent illness or exposure to persons with streptococcal infection. She has a mild sore throat but is able to eat and drink without any difficulty. There are no symptoms of fever; chills; nausea; or ear, dental, or facial discomfort. She has a history of asthma and is a former smoker.

PHYSICAL EXAMINATION

She is in no apparent distress. Blood pressure is 120/70 mm Hg; pulse, 80 beats per minute; respiration rate, 18 breaths per minute; and temperature, 37°C (98.6°F). Examination of her throat reveals a small whitish mass in the right tonsillar area. Her dentition is appropriate as is her speech. She has no evidence of halitosis. There is no drooling, her neck is supple, and her lungs and ears are normal. Abdomen is soft and nontender.
This patient had a tonsillolith, a small stone that can form in the crypts of the tonsils. They may also be found in the tongue but more commonly are located in the palatine and sometimes the lingual tonsils. Relatively common, these concretions of calcium (and sometimes other minerals such as magnesium, phosphate, carbonate, and ammonia) contain a variety of anaerobic bacteria, including *Fusobacterium*, *Eubacterium*, *Porphyromonas*, and *Prevotella*. These organisms produce volatile sulfides, which have been associated with periodontal disease as well as halitosis.

Although the tonsilloliths themselves have an undesirable odor, they do not always result in halitosis, even though patients often associate these stones with bad breath. Patients may complain of oral malodor, foreign body sensation in the back of the throat, or throat closing or tightening, especially with larger stones. These may be incidentally discovered on plain radiographs or CT scans.

Asymptomatic stones require no intervention, although many patients may attempt manual removal of these concretions. Application of laser therapy to the crypts prevents their recurrence.

**DIFFERENTIAL DIAGNOSIS**

*Streptococcal pharyngitis* usually presents with the sudden onset of sore throat, fever, purulent exudates on the tonsils, and cervical adenitis. Although many causes have been implicated in acute pharyngitis, the identification and treatment of pharyngitis due to streptococcal infection prevents acute rheumatic fever, shortens the duration of symptoms, and prevents suppurative complications. A comprehensive discussion of diagnosis and treatment is beyond the scope of this article.

*Herpes simplex virus type 1* (HSV-1) causes lesions of the oral mucosa; these lesions may be primary or recurrent. Primary infection often presents as an acute onset of multiple vesicular lesions on an erythematous base. These lesions are painful and may persist from 10 to 14 days. Systemic symptoms are usually absent; they are more common in patients who experience recurrent infection.

Occasionally, the presentation of HSV-1 infection may be that of a severe pharyngitis with associated tonsillar exudates, pharyngeal edema, oral exudates, and ulcerative lesions. As with recurrent HSV-1 infection, systemic symptoms often accompany this form of pharyngitis.

*Sialolithiasis* is a relatively common condition, in which calculi are present in the parotid or submandibular glands, or Stensen’s or Wharton’s duct. The majority of these stones occur in the submandibular glands and parotid ducts, and they are largely composed of calcium phosphate and hydroxyapatite. The exact cause leading to formation of these stones is unknown. Many studies implicate a relative stagnation of saliva, which has a high concentration of calcium, in patients who have partial duct obstruction; this sets the stage for stone formation.

Patients often complain of episodic discomfort and swelling of the involved gland, which is frequently aggravated by eating. Some patients are asymptomatic. Stones may be palpable, observed clinically, or found on radiographs during the evaluation of facial discomfort or other diagnostic purposes.

Conservative treatment with hydration, analgesics, and sialogogues often results in the resolution of symptoms; however, some patients with larger stones (greater than 2 mm) may require surgical intervention.

**FOR MORE INFORMATION:**