

Sialolith: An Unusual Calculus

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A 14-year-old male, diagnosed with juvenile recurrent parotitis (four episodes on the right parotid gland), went to the pediatric emergency department for sudden pain in the right submandibular region during a meal. On observation, he presented right submandibular swelling, with tenderness and no other inflammatory signs. On inspection of the oral cavity, a small calculus was observed on the right Wharton duct orifice (Fig. 1). There was evidence of poor dental hygiene. During the stay in the emergency room, the calculus was expelled spontaneously with the improvement of the patient complaints. He was discharged with the diagnosis of sialolithiasis, prescribed a non-steroidal anti-inflammatory, increase of oral hydration, measures for saliva production stimulation (lemon candy), and the need for good oral hygiene was reinforced.

Sialolithiasis is characterized by the presence of calculi in the salivary glands or in their drainage ducts, more often in the submaxillary gland. It is a rare entity among those of pediatric age, and the smaller calculi have a more distal location and a shorter duration of symptoms.¹⁻⁴

The etiology is not fully understood.² Known risk factors in adults are dehydration, poor oral hygiene, trauma, tobacco smoke, diuretics, and anticholinergics.^{2,4}



Figure 1. Sialolith on the right Wharton duct orifice (thick arrow), with swelling of the duct (thin arrow).

The diagnosis is clinical. It manifests with pain and the swelling of the gland, worsening immediately before or during meals.² On examination, one should perform the bimanual palpation of the Wharton canal on the buccal floor; the calculi located in the distal portion of the ducts can be easily identified.² Radiography, echography, computed tomography/magnetic resonance imaging sialography, or sialoendoscopy can be used in case of diagnostic doubt.

Treatment is conservative. Hydration, massage, application of local heat, analgesia, and non-pharmacological agents that stimulate the production of saliva are recommended.² Most calculi in the submaxillary duct can be removed transorally. If there are larger calculi or there are refractory symptoms, lithotripsy, endoscopic removal, or surgery may be necessary.^{1,5}

Keywords: Adolescent; Facial Pain; Salivary Duct Calculi/diagnosis; Salivary Duct Calculi/therapy

WHAT THIS REPORT ADDS

- Sialolithiasis is characterized by pain and swelling in the region of a salivary gland, with sudden onset before or during a meal.
- On examination, palpation of the gland and drainage duct is important, even when a calculus is not evident upon inspection.
- The treatment is conservative. Refractory or recurrent cases may require specific therapeutic measures.

Conflicts of Interest

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