The Journal of Emergency Medicine, Vol. 56, No. 3, pp. 340–341, 2019

0736-4679/$ - see front matter

https://doi.org/10.1016/j.jemermed.2018.12.001

Visual Diagnosis in Emergency Medicine

A WOMAN WITH SORE THROAT AND SWOLLEN GLANDS

Paul S. Jansson, MD, MS*†‡ and Todd W. Thomsen, MD‡§

*Department of Emergency Medicine, Brigham and Women's Hospital, Boston, Massachusetts, †Department of Emergency Medicine, Massachusetts General Hospital, Boston, Massachusetts, ‡Department of Emergency Medicine, Harvard Medical School, Boston, Massachusetts, and §Department of Emergency Medicine, Mount Auburn Hospital, Cambridge, Massachusetts

Reprint Address: Paul S. Jansson, MD, MS, Harvard Affiliated Emergency Medicine Residency, 5 Emerson Place, Suite 101, Boston, MA 02114

CASE REPORT

A 57-year old woman presented for evaluation of swollen glands. She reported several days of worsening sore throat, which was accompanied by swelling to the left side of her neck and jaw. She had no associated dental pain, difficulty breathing, or fevers. Her medical history was notable for deep vein thrombosis, currently on anticoagulation and remote non-Hodgkin's lymphoma in remission.

On examination, the vital signs were normal and the patient appeared uncomfortable but not systemically ill. She had no stridor and was able to tolerate her secretions. The mouth and posterior oropharynx appeared normal. The floor of the mouth was tender to palpation on the left without fluctuance. There was mild swelling to the submandibular area of the jaw with palpable lymphadenopathy. A computed tomography (CT) scan of the neck was performed (Figures 1 and 2).

CT imaging revealed a large calculus within the left submandibular salivary duct with mild fat stranding and reactive lymphadenopathy. The patient was treated with a course of cephalexin and was referred to an otolaryngologist for stone removal.

DISCUSSION

Diagnosis: Submandibular Sialolithiasis with Sialadenitis

Sialolithiasis occurs when calculi form in the ductal system of the salivary glands; 80–90% of cases occur in the Wharton duct of the submandibular gland, likely due to slower flow rates and a longer ductal system. The remaining 10–20% of stones are found in the Stensen duct of the parotid gland; sublingual stones are rare (1,2). The clinical presentation includes swelling and pain, which may be

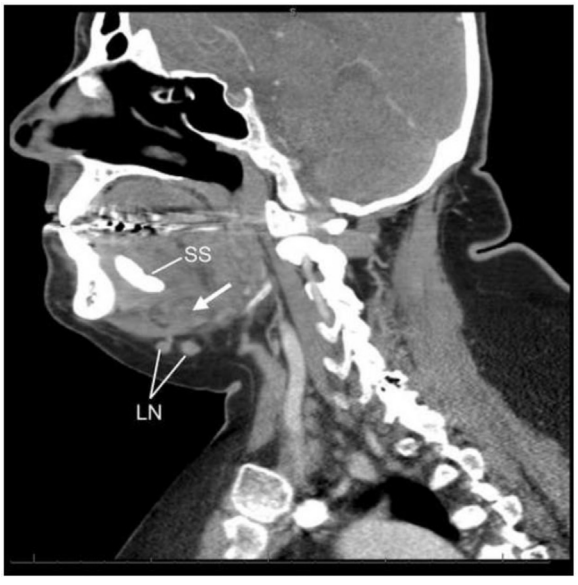

Figure 1. Sagittal view of the neck. A 2.5-cm salivary stone (SS) is seen in the region of the left submandibular salivary duct. Heterogeneous soft tissue and fat stranding (arrow), indicative of localized inflammation, is seen proximal to the stone. Enlarged submandibular lymph nodes (LN) are noted and are likely reactive in nature.

Received: 4 May 2018; Final submission received: 29 November 2018;
Accepted: 8 December 2018

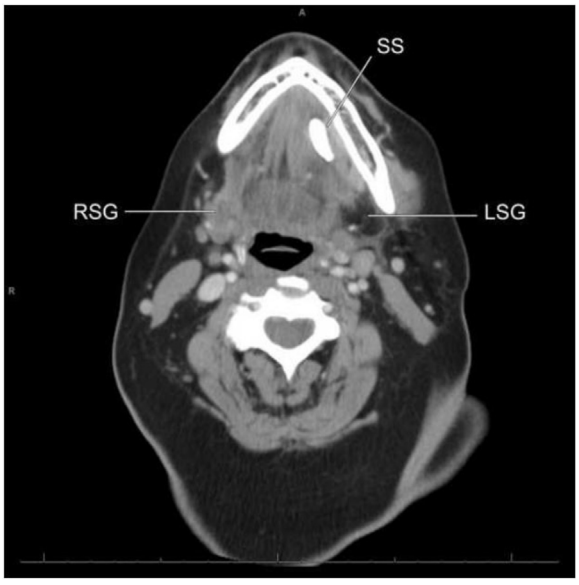

Figure 2. Axial view of the jaw. The salivary stone (SS) is again noted. The right submandibular gland (RSG) is normal in appearance. The left submandibular gland (LSG) is atrophic and has largely been replaced by fat, suggesting that obstruction of the left submandibular duct has been ongoing for some time.

postprandial. CT is the first-line imaging modality for diagnosis, and ultrasound can be used to detect larger and more proximal stones (3,4). Management includes sialogogues such as lemon drops, gentle massage to expel small stones, and anti-inflammatories. Patients with large stones should be referred to an otolaryngologist for salivary endoscopy or resection. A postobstructive sialadenitis may occur and is treated with antibiotics active against oral flora such as cephalexin or clindamycin.

REFERENCES

1. Jackson NM, Mitchell JL, Walvekar RR. Inflammatory disorders of the salivary glands. In: Flint PW, Haughey BH, Lund VJ, et al., eds. Cummings otolaryngology – head and neck surgery. 6th edn. Philadelphia: Elsevier; 2015:1151–61.
2. Pfaff JA, Moore GP. Otolaryngology. In: Walls RM, Hockberger RS, Gausche-Hill M, et al., eds. Rosen's emergency medicine: concepts and clinical practice. 9th edn. Philadelphia: Elsevier; 2018:820–31.
3. Goncalves M, Schapher M, Iro H, Wuest W, Mantsopoulos K, Koch M. Value of sonography in the diagnosis of sialolithiasis: comparison with the reference standard of direct stone identification. J Ultrasound Med 2017;36:2227–35.
4. Thomas WW, Douglas JE, Rassekh CH. Accuracy of ultrasonography and computed tomography in the evaluation of patients undergoing sialendoscopy for sialolithiasis. Otolaryngol Head Neck Surg 2017;156:834–9.