Sialolithiasis of Right Submandibular Duct of Unusual Size

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Abstract

We present a case of a 35-year-old gentleman with a submandibular duct stone measuring 12×6 mm. Considering the literature, most stones are less than 5 mm, and stones more than 10 mm are quite unusual. This gentleman had typical symptoms of chronic sialadenitis, who was clinically diagnosed to have sialolithiasis, which was later confirmed by imaging studies. He was operated upon to remove the stone along with the submandibular gland. The term sialolithiasis is derived from the Greek words *sialon* (saliva) and *lithos* (stone), and the Latin *-iasis* meaning “process” or “morbid condition”. Sialolithiasis affects the submandibular gland in 80–90% of cases because of the curved course of submandibular duct and the secretions being more mucous. Pain is the most common presenting feature during mastication and surgical removal of the sialolithiasis is the treatment of choice. The incision depends on the location of the stone in the duct.

Keywords Sialolithiasis · Submandibular duct · USG sialolith · Obstructive salivary disease

Case study

A 35-year-old gentleman presented with pain during mastication for the last 15 years and found small stones in his mouth on waking up in the morning for the last 3 months. Bimanual examination revealed a hard, well-defined mass in the right submandibular region which was free from the skin and situated in the proximal one-third of the submandibular duct. The opposite side was normal. No neck lymph nodes were palpable. X-ray showed a large radiopaque shadow in the right lower jaw (Fig. 1). USG showed dilated submandibular duct and hyperechoic lesion in the duct with posterior acoustic shadow (Fig. 2), confirming the diagnosis of sialolithiasis in right submandibular duct. Sialadenectomy was performed and the stone was extracted which measured 12×6 mm (Fig. 1).

Sialolithiasis is the most common cause (66%) of obstructive salivary diseases [1] and accounts for about 50% of major

salivary gland diseases [2]. It has a clinical prevalence of 0.45% [3] and higher in males [4]. Incidence peaks between the age of 30 and 60 years [5]. Submandibular gland is the most commonly affected [4] and the majority of calculi are located in the distal third of the duct or at the hilum of the gland [6]. On the basis of literature review, most of the sialoliths are usually of 5 mm in maximum diameter and all the stones over 10 mm should be reported as a sialolith of unusual size [7].

Fig. 1 X-ray of head showing a radiopaque shadow in right submandibular region. The stone after removal is shown

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Fig. 2 USG of right submandibular gland showing hyperechoic lesion with posterior acoustic shadow and proximal dilated duct

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

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