## **CASE REPORT**

# Patience Pays Off: A Case of Self Exfoliation of Large Parotid Sialolith

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#### Abstract

Sialolithiasis is one of the common diseases affecting the salivary glands. The submandibular gland is the most commonly affected gland among the three major salivary glands. The incidence of parotid sialolith is rare and when present, often demands surgical removal. Here, we report a rare case of a female patient presented with large sialolith indicated for surgical removal. However, surprisingly, it resulted in self-exfoliation eliminating the need for surgery as the patient had opted to wait.

**Keywords**: Salivary Gland Calculi, Parotid Gland, Sialolith

#### Introduction

Sialolithiasis is one of the common diseases affecting the submandibular salivary glands with less common involvement of the parotid glands. Self-exfoliation of calculi has been reported however, it commonly happens if the size of the calculi is few millimeters and the calculi can easily pass through the duct. Here we report a case of self-exfoliation of large salivary calculi from the Stenson's duct.

## **Case Report**

A 60 year old female patient reported with the complaint of pain and swelling in the left middle third of the face of two weeks duration. On extraoral examination, an ill-defined soft swelling was present at the left parotid region. Intraorally a palpable mass hard in consistency measuring

approximately 1 cm in diameter was felt close to the duct orifice. Saliva flow from the duct orifice was normal. The patient was advised panoramic radiograph which showed a well-defined radio-opaque mass on the left side measuring approximately 10mm × 4mm lying medial to the ramus of the mandible in the soft tissue region (Fig.1). Ultrasonography of left parotid region showed hyperechoic bulky parotid gland. The left parotid duct was prominent with a calculus measuring about 10mm seen in the distal end of the duct (Fig.2).

The patient was advised a course of antibiotics (Augmentin® 625 mg), warm saline gargle and moist hot compresses over the left parotid region and was advised to undergo surgical removal of the sialolith. However, the patient did not return for a further review. The patient made her next visit after 1 year with some discomfort in the left Stenson's duct opening. Clinical examination revealed a yellowish white colored calculus protruding through the Stenson's duct opening (fig.3). After two days the patient reported back with the exfoliated sialolith. The sialolith was measuring 14mm × 10mm in dimensions and weighing about 500 mg. On examination, the ductal opening appeared to be swollen. However, the patient was asymptomatic and thus was advised routine oral care instructions.



Fig. 1: Panoramic Radiograph Showing a Radio-Opaque Mass on the Left Side Medial to the Ramus of the Mandible in the Soft Tissue Region

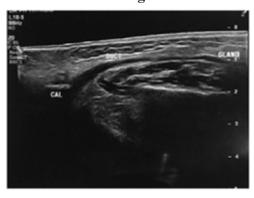


Fig. 2: Ultrasonography of Parotid Region Showed a Calculus Measuring 10mm Seen in the Distal End of the Duct



Fig. 3: The Yellowish-White Colored Calculi Protruding through the Stenson's Duct Orifice

### Discussion

The incidence of calculi in salivary glands is more common in submandibular gland compared to parotid gland with a ratio of about 8:2[1]. Parotid sialoliths generally measure less than 1 cm in size, usually unilateral, and occur commonly in the ductal system [2]. The growth of such sialoliths depends on the ability of the affected salivary duct to dilate [3]. Previous histologic studies have demonstrated that diameter of the Stenson's duct has a range from 0.5 mm to 1.4 mm [4]. Hence, presence of large sialolith in parotid gland is a rare occurrence.

The formation of sialoliths in the parotid duct was ascribed to slow salivary flow, salivary stagnation and complex metabolic events. An analysis of parotid calculi by Zhu *et al.* on 15 patients revealed maximum size being 10 mm [5]. Larger salivary calculi are usually found in the body of salivary glands and are rarely been described being in the salivary ducts [6].

Conservative approach for the management of small sialolith comprises of advising the patient to increase fluid intake, application of warm moist heat and massaging the gland in conjunction with sialogogues [7]. The surgical removal is the option if calculi is attached to the duct wall or is of diameter of more than 8-10 mm [8].

As the sialolith size appeared large measuring about 1cm in diameter, we suggested for its surgical removal. However, the patient was apprehensive about undergoing the procedure and opted to wait without any treatment. Usually, in such cases, the patient may develop recurrent sialadenitis compelling them to undergo removal of calculi. This did not happen with our patient. Hence she could afford to wait for a year without any intervention.

Sialolithiasis of parotid glands is a rare occurrence. Most of the times, they are indicated for surgical removal based on their location and size. However, if the sialolith are located in the distal portion of the duct and patient is relatively asymptomatic with normal salivation, then there is a high chance for self-exfoliation of sialolith.

Hence, attempts should be directed towards increasing the salivary flow to promote lavage of stone. However, the patient should be under periodic check up to prevent any untoward complications. This is probably the first case to be reported on self exfoliation of large sialolith from the parotid gland.

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