

原文題目(出處)：	Wharton's duct sialolith of a unusual size: A case report with a review of the literature. Case Rep Dent 2014, Article ID 373245
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內文：

### **Introduction**

Sialolith:

- One of the most common diseases of salivary glands
  - Estimated frequency of 0.15% in the adult population
  - Slight male predilection
  - Mostly develop in the submandibular gland
  - Always found in the distal portion of the duct or at the hilum of the submandibular gland with a few in parenchyma
  - Salivary stasis and salivary viscosity play a significant role in its development
  - Commonly measures from 1mm to < 1cm, rarely measure > 1.5 cm
- ✓ Aim:
- To present a case of an unusually sized sialolith and review of the literature on large sialoliths (1.5cm or larger)

### **Case Report**

- ✓ **Patient:** 36-years-old male
- ✓ **Chief Complaint:** Pain and swelling in the floor of the mouth for 1 year
- ✓ **Present Illness:** Intermittent increase in the swelling in the early morning and pain during eating which later subsides on its own. The pain was of moderate variety that the patient could tolerate. There was no associated history of fever, malaise, or burning sensation in the oral cavity.
- ✓ **Extraoral examination:** No relevant findings.
- ✓ **Intraoral examination:**



FIGURE 1: Intraoral palpation.

A swelling of size 3 × 1 cm extending anteroposteriorly and mediolaterally on the right floor of the mouth from lingual frenum to the second premolar:

- Normal overlying mucosa
- No salivary obstruction
- Hard in consistency and non-tender
- Lesion not fixed, not pulsatile.
- No purulent discharge

✓ **Radiographic examination:** Panoramic radiograph, occlusal radiograph

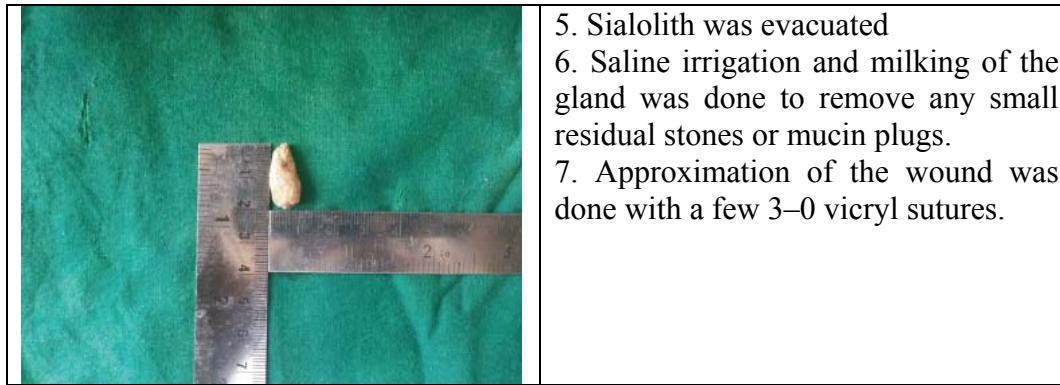


Radiopaque mass of size 3× 1 cm extending anteroposteriorly and mediolaterally from the mandibular lateral incisor region to premolar region in the floor of the mouth, suggestive of a sialolith

✓ **Surgery procedure:**



1. Local anesthesia
2. Retraction suture was placed around the duct distal to the stone, which was then retracted anteriorly.
3. Mucosal incision was placed and careful blunt dissection of the tissues was done and sialolith was located.
4. Longitudinal incision through the superior duct wall overlying the sialolith was placed.



- Patient was recalled after seven days for review.
- The healing was found to be satisfactory and salivary
- Salivary flow normal, symptom relieved

### **Discussion**

- ✓ **Formation of sialolith** (Harrison et al.)
  - Formation of the nucleus of sialolith in the submandibular glands is secondary to sialadenitis and is related to the duration of symptoms of sialadenitis
  - During chronic submandibular sialadenitis inflammatory swellings would lead to the partial obstruction of a large duct with stagnation of secretory material rich in calcium. This would form a calcified core and later when this grows, it would become a sialolith
- ✓ **Sign and symptoms**
  - Swelling
  - Anatomical asymmetry
  - Size fluctuation
  - Rapid onset and partial resolution over one to several hours
  - Residual glandular swelling, decreased salivary flow as compared to the contralateral gland
  - ✓ Pain which intensifies during meal times or when salivary flow is stimulated
  - ✓ Swelling and erythema of submandibular papilla for distal stones
- ✓ Unusually suppurative or localized cellulitis

TABLE 1: Unusually sized sialoliths reported in literature.

	Study	Number of cases	Age	Gland	Location	Size
1	Meyers, 1942 [17]	1	50	SM	Duct	50
2	Mustard, 1945 [18]	1	42	SM	Duct	56
3	Allen, 1956 [19]	1	49	SM	Duct	35
4	Cavina and Santoli, 1965 [20]	1	59	SM	Duct	70+
5	Cavina and Santoli, 1965 [20]	1	53	SM	Both	60
6	Hoggins, 1968 [21]	1	52	SM	Paren	50
7	Rust and Messerly, 1969 [22]	1	66	P	Duct	51
8	Rust and Messerly, 1969 [22]	1	58	NR	Paren	35
9	Raksin et al., 1975 [23]	1	52	SM	Duct	55
10	Isacson and Persson, 1982 [24]	1	48	SM	Duct	36
11	Tinsely, 1989 [25]	1	48	SM	Paren	50
12	Hubar et al., 1990 [26]	1	65	SM	Duct	52
13	Akin and Esmer, 1991 [27]	1	45	SM	Paren	45
14	Paul and Chauhan, 1995 [28]	1	45	SM	Duct	46
15	Bodner, 2002 [29]	1	50	SM	Duct	50
16	Ledesma-Montes et al., 2007 [7]	1	34	SM	Duct	36
17	Gonçalves et al., 2002 [30]	1	52	SM	Duct	22
18	Rai and Burman, 2009 [31]	1	60	SM	Duct	72
19	Miyashita et al., 2013 [32]	1	58	P	Duct	15
20	Yu et al., 2013 [5]	9	15-78	SM and P	Duct	16-29
21	Huang et al., 2009 [9]	1	57	SM	Duct	40
22	This case	1	36	SM	Duct	20

✓ **Mostly occurred in submandibular gland. Why?**

- (1) The submandibular duct is wider in diameter and longer than the Stensen duct.
- (2) The salivary flow in the submandibular gland is against gravity.
- (3) The submandibular salivary secretion is more alkaline compared with parotid saliva
- (4) The submandibular saliva contains a higher quantity of mucin proteins whereas parotid saliva is entirely serous.
- (5) Calcium and phosphate content in submandibular saliva are higher than in other glands.

✓ **Treatment of sialolith**

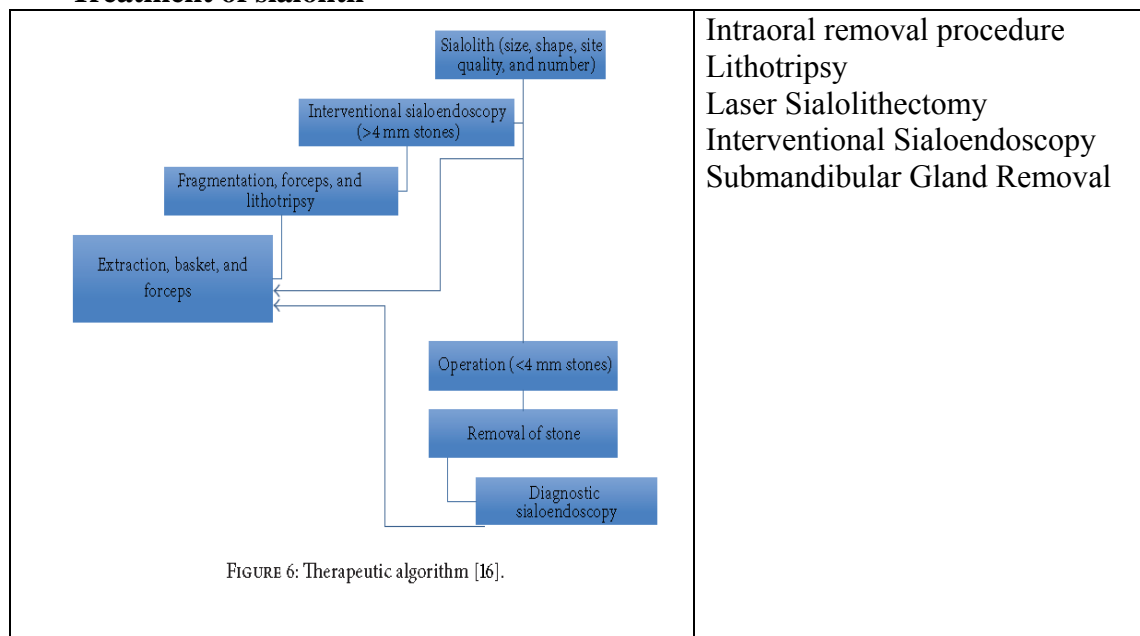


FIGURE 6: Therapeutic algorithm [16].

**Conclusion**

This case report demonstrates a case of an unusually sized sialolith and various anatomical and physiological considerations of the duct which contribute to the higher incidence of sialolith in the duct.

題號	題目
1	<b>Sialoliths mostly occur within which salivary glands?</b> (A) Parotid glands (B) Submandibular glands (C) Sublingual glands (D) Von Ebner glands
答案 (B)	出處：Oral and Maxillofacial PATHOLOGY Third Edition pg.459
題號	題目
2	<b>Which of the following statements is WRONG?</b> (A) Sialoliths typically appear as radiolucent masses in radiographic examination. (B) Major gland sialoliths most frequently cause episodic pain or swelling of the affected gland. (C) Minor gland sialoliths often are asymptomatic. (D) Salivary stones can occur at almost all age, but they are most common in young and middle-aged adults.
答案 (A)	出處：Oral and Maxillofacial PATHOLOGY Third Edition pg.459