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# Sialolithiasis of the lower lip

**KEYWORDS**
Sialolithiasis;
Lower lip;
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The sialolithiasis of minor salivary glands occurs most commonly in the upper lip and buccal mucosa.[1–5] It is relatively rare in the lower lip.[1–3] Here, we presented a case of the sialolithiasis of minor salivary glands of the lower lip in a 52-year-old male patient.

This 52-year-old male patient came to our dental clinic for evaluation and treatment of a small mass approximately 0.3 cm in diameter in the right labial mucosa of the lower lip for more than 2 weeks. The mass was sessile and covered by pink smooth labial mucosa. It was soft and asymptomatic but disturbed the patient because it was sometime bitten by the patient when chewing. The clinical differential diagnoses of the lower labial mucosal lesion included mucocele, fibroma, sialolithiasis, and benign minor salivary gland tumor. After discussing with the patient and obtaining the signed informed consent, the right lower labial mucosal mass was totally excised under local anesthesia and sent for histopathological examination. Microscopically, it showed an oval sialolith composed of eosinophilic and basophilic bands in a minor salivary gland excretory duct lined by a single layer of cuboid epithelial cells with occasional mucin-secreting cells and located in the lamina propria of the lower labial mucosa (Fig. 1A–C). The adjacent mixed minor labial glands exhibited several dilated excretory ducts lined by a single layer of cuboid epithelial cells as well as the dilated and congested capillaries and a mild lymphoplasma cell infiltrate in the perivascular and periductal interstitial connective tissues of the mixed minor salivary glands (Fig. 1D–F). Therefore, the final histopathological diagnosis was the sialolithiasis of the minor salivary glands of the right lower lip.

Sialolithiasis is a relatively common disease of the major salivary glands, especially the submandibular glands (80% to 92%), while it is a rare disease of the minor salivary glands (<2%).[1] The sialolithiasis of minor salivary glands showed a slight predilection for male patients in the cases reported in the literature.[1] However, in a series of 17 sialolithiasis cases of the minor salivary glands reported in Taiwan, it occurs more predominantly in male patients (n = 14) than in female patients (n = 3).[3] For the sialolithiasis of the lips, Okada et al.[2] reported a case of sialolithiasis of the lower lip simulating a mucocele in 2011, and review of the literature also found 4 additional cases of the sialolithiasis affecting the lower lip and 39 cases of the sialolithiasis affecting the upper lip. Of the 17 sialolithiasis cases of minor salivary glands reported in Taiwan by Wang et al.,[3] 7 are discovered in the buccal mucosa, 5 in the upper lip, 3 in the lower lip, and one each in the vestibule and retromolar area. Moreover, regarding the 126 sialolithiasis cases of minor salivary glands reported by Ben Lagha et al.,[1] the most common location is the upper lip (62 cases), followed by the buccal mucosa (47 cases), the lower lip (7 cases), the vestibule (6 cases), the palate (one case), and the tongue (one case). Taken these findings together, the sialolithiasis of minor salivary glands occurs most frequently in the upper lip and buccal mucosa.[1–5]

The sialolithiasis of minor salivary glands is difficultly diagnosed clinically. Of the 17 sialolithiasis cases of minor salivary glands reported in Taiwan, only one case (5.88%) was correctly diagnosed as sialolithiasis prior to the biopsy examination. The minor salivary gland sialolith is best treated by surgical excision of the salivary stone together with the adjacent minor salivary glands.[1–5] The recurrence is very rarely reported after the total surgical removal.

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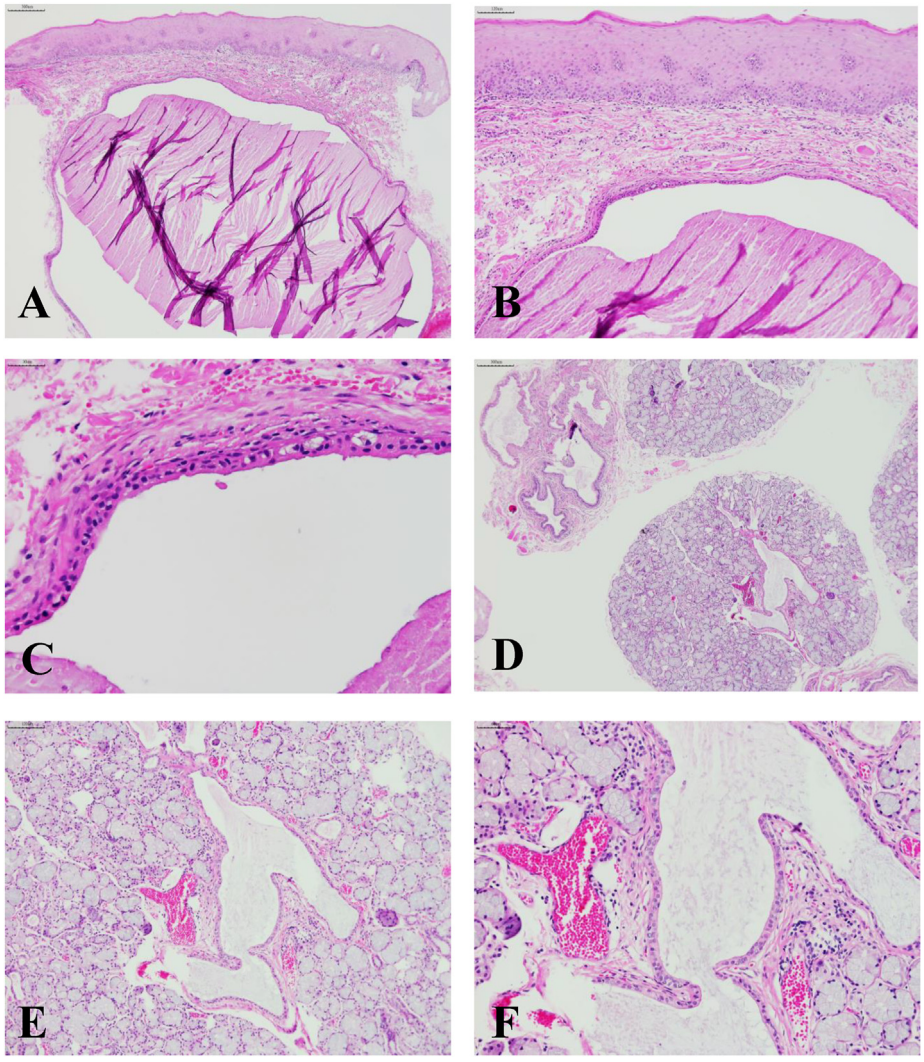


**Figure 1** Histopathological photomicrographs of our case of the sialolithiasis of the lower lip. (A, B, and C) Low-, medium-, and high-power photomicrographs showing an oval sialolith composed of eosinophilic and basophilic bands in a minor salivary gland excretory duct lined by a single layer of cuboid epithelial cells with occasional mucin-secreting cells (C) and located in the lamina propria of the lower labial mucosa. (D, E, and F) Low-, medium-, and high-power photomicrographs demonstrating the adjacent mixed minor salivary glands with several dilated excretory ducts lined by a single layer of cuboid epithelial cells as well as the dilated and congested capillaries and a mild lymphoplasma cell infiltrate in the perivascular and periductal interstitial connective tissues of the mixed minor salivary glands. (Hematoxylin and eosin stain; original magnification; A and D, 4 × ; B and E, 10 × ; C, 40 × , and F, 20 × ).

## Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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## References

1. Ben Lagha N, Alantar A, Samson J, Chapireau D, Maman L. Lithiasis of minor salivary glands: current data. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2005;100:345—8.
2. Okada H, Yokokawa M, Komiya M, Akimoto Y, Kaneda T, Yamamoto H. A rare case of sialolithiasis of the lower lip simulating a mucocele and review of the literature. *Quintessence Int* 2011;42:589—94.
3. Wang WC, Chen CY, Hsu HJ, Kuo JH, Lin LM, Chen YK. Sialolithiasis of minor salivary glands: a review of 17 cases. *J Dent Sci* 2016;11:152—5.
4. Huang HK, Hwang MJ, Chiang CP, Jin YT. Sialoliths in the minor salivary glands of the upper lip. *J Dent Sci* 2023;18:1392—4.
5. Huang CH, Hwang MJ, Lang MJ, Chiang CP. Minor salivary gland sialolithiasis of the upper lip. *J Dent Sci* 2022;17:1050—2.

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