

Mucocele of the glands of Blandin-Nuhn: Report of 2 cases

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يعرض هذا التقرير وصف لحالتين من القيلة المخاطية لغدد Blandin-Nuhn (العدد اللصافية اللسانية الأمامية) كلا المريض من الذكور بأعمار ١٩ و ٢٤ سنة على التوالي. لم تشمل السيرة المرضية لكلا الحالتين أية إصابة رضوية قد تكون المسؤولة عن حدوث الإصابة. في إحدى الإصابات كان هناك تعاضاً مع الكلام والمضغ والبلع. أما الحالة فقد أوضحت أن المريض قد تعرض للاستئصال الجراحي للغدة تحت اللسان لكن عاد الانتفاخ ثانية. شملت معالجة القيلة المخاطية الاستئصال الجراحي للغدد المصابة. وأظهر الفحص النسيجي أن إحدى الحالات كانت عبارة عن قيلة مخاطية الخبسية.

This report describes two cases of mucocele of the glands of Blandin-Nuhn (the anterior lingual salivary glands). Both patients were males, aged 19 and 24 years, respectively. There was no history of trauma in either case as possible initiating cause. In one patient, there was interference with speech, mastication and deglutition. In the other case, the patient had a previous surgery for removal of the sublingual gland but the swelling recurred. Treatment of the two mucoceles was by excision of the involved glands. Histologically, one case was an extravasation mucocele and the other was a retention mucocele.

INTRODUCTION

The glands of Blandin-Nuhn (the anterior lingual salivary glands) are a compact package of seromucous glands located within the ventral part of the muscles of the tongue (styloglossus and inferior longitudinal muscle) anteriorly, close to the midline. They open with several ducts on their inferior surface.^{1,2} The glands possess peculiar cytological and cytoarchitectural characteristics when compared to other minor salivary gland.^{3,4,5} Apart from mucoceles, the glands of Blandin-Nuhn have also been the unusual site of intraductal papilloma and cylindroma.^{6,7}

Mucoceles of the glands of Blandin-Nuhn are exophytic and may resemble pyogenic granulomata, polyps or squamous papillomata.⁸ There is usually a female preponderance and most patients are younger than 20 years.⁹ Clinically, the mucoceles show the following characteristics: a positive

history of trauma in most cases, rapid onset, alternating increase and reduction in size, bluish colour and a fluid-filled consistency.^{8,9} Histopathologically, most mucocele of the glands of Blandin-Nuhn are of the extravasation type.^{8,9}

Mucoceles of the glands of Blandin-Nuhn are uncommon. This report describes two such cases. The findings are compared with cases in the literature with a discussion of the clinical course and diagnostic pitfalls.

CASE REPORTS

Case 1

A 24-year old male presented with a painless swelling on the ventral surface of the tongue of one month duration. The swelling was said to interfere with speech, mastication and deglutition. The swelling had slowly increased in size. There was no history of trauma to the area. The patient was being referred by a private medical practitioner who had earlier incised and drained the swelling and

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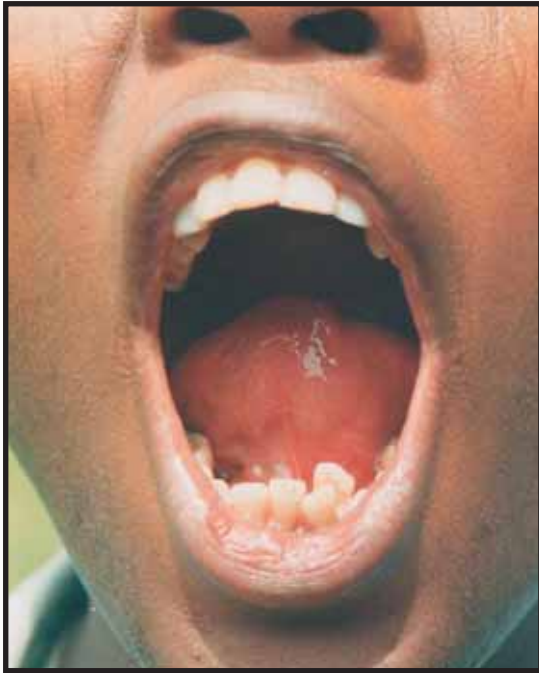


Fig. 1. Case 1 showing the swelling on the left of the ventral surface of the tongue. The over lying mucosa is of normal color.

when it recurred, the sublingual salivary gland was excised. Although the swelling regressed, it quickly reappeared.

Examination revealed a swelling measuring about 2.5 cm by 2 cm located on the left side of the ventral surface of the tongue, close to the tip (Fig. 1). The overlying mucosa was of normal color. Although the swelling appeared tense, it did not show signs of inflammation. There was no submandibular or cervical lymphadenopathy. The medical history was not significant. Aspiration of the swelling yielded mucus. Based on the peculiar location, a clinical diagnosis of mucocele of the glands of Blandin-Nuhn was made. Under local anaesthesia, the glands were excised, the wound edges were undermined and the wound closed with interrupted sutures. The postoperative course was uneventful and there has been no recurrence after eight months of follow up.

Histologically, the lesion showed a large mucus-filled cavity lined by granulation tissue. There was no epithelial lining. The wall of the mucocele showed an infiltration by macrophages. Based on these features, the mucocele was histologically diagnosed as an extravasation type.

Case 2

A 19-year-old male presented with a painless swelling on the ventral surface of the tongue of 5 weeks duration. The swelling had gradually increased in size but did not disturb speech, mastication or deglutition. On one occasion, it had ruptured and discharged its contents, only to refill. There was no history of trauma to the area, and the medical history was not significant.

Examination revealed a bluish swelling on the left side of the ventral surface of the tongue away from the tip and close to the midline (Fig. 2). The swelling measured about 2 cm by 2 cm and had a polypoid appearance. Aspiration of the swelling yielded mucus. The swelling was clinically diagnosed as a mucocele of the glands of Blandin-Nuhn. The surgical treatment was performed as in Case 1, and the postoperative course was uneventful. The lesion has not recurred after 6 months follow up.



Fig. 2. Case 2 showing a left sided bluish and translucent swelling on the ventral surface of the tongue.

Histologically, the lesion showed two ductal epithelium-lined cavities filled with mucus. There was no surrounding chronic inflammation. The histologic diagnosis was mucocele of the relation type.

DISCUSSION

Over 70% of all mucoceles arise in the lower lip, followed by the cheek, palate, and the floor of the mouth.^{10,11} Occasionally, they may be seen on the ventral surface of the tongue involving the glands of Blandin-Nuhn⁸⁻¹⁰ Jinbu *et al.*⁹ conducted a study of a large series of cases showing the age and sex distribution of these lesions. They also showed that most of their patients had visited other healthcare practitioners before presenting for specialist attention. This was seen in one of the patients in this study who first presented to the general medical practitioner before being referred.

Although all mucoceles of the glands of Blandin-Nuhn occur on the under-side of the tongue, some variably occur at the tip, more posteriorly, at the midline, or more laterally.^{9,12} This may lead to diagnostic pitfalls as seen in the patient (Case 1) who had his sublingual gland excised in the erroneous belief that the swelling was a ranula. Baurmash¹³ has advised against the unconditional removal of the sublingual gland as a standard treatment for all mucoceles around the floor of the mouth. Caution and a close examination of the origin of the lesion are prudent before considering any removal of the sublingual gland.¹³

The following are considered helpful in the clinical diagnosis of mucocele of the glands of Blandin-Nuhn: a history of trauma, recovery of mucus with aspiration, rapid onset, increase and reduction in size, a fluid-filled consistency and bluish colour.^{8,9} Both patients in our

report had no recollection of trauma to the undersurface of the tongue and the lesion was bluish only in one case which probably resulted from tissue cyanosis and vascular congestion associated with the stretched overlying tissue and the translucent character of the accumulated fluid beneath. The variation in colour then depends on the size of the lesion, its proximity to the surface and the elasticity of the overlying tissues.¹²

During surgery, the glands of Blandin-Nuhn are seen deep within the tongue musculature. Careful removal of all glandular tissue is essential to prevent recurrence.⁸ The literature shows that although the vast majority of mucoceles of the gland of Blandin-Nuhn are formed by the extravasation mechanism,^{8-10,12} a case of retention mucocele has been reported.¹⁴ One of the two cases reported was a retention type.

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