

A rare cause of facial asymmetry; Nasolabial cyst - Clinical report

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ABSTRACT

Asymmetrical alar flare without a history of trauma, surgery, or congenital clefting is extremely rare; therefore a thorough investigation into the underlying reasons for the asymmetry should be undertaken before a complete excision is performed. Nasolabial cyst is a readily apparent diagnosis that should not be missed after proper intranasal and intra-oral examination. We report a case of nasolabial cyst that developed as a slowly enlarging mass in our patient.

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Introduction

Nasolabial cyst is classified as a fissural cyst, found outside the bone, and on the region corresponding to the nasolabial furrow and alar nose. [1] The lesion cause painless swelling in the sublabial fold, lips, face and cause nose obstruction. Pain can occur if the cyst becomes infected. Because of their position in the facial soft tissues rather than in the alveolar process, the term nasolabial cyst has been preferred. [1] The literature usually postulates surgical excision as the treatment of choice.[2]

Case Report

A 45 year old man was referred to oral surgery department complaining of increasing left nasal swelling of 5 years duration (Figure1). Physical examination revealed a well demarcated, round, non-tender soft tissue mass, behind the left ala nasi and fullness of the upper lip. The left nasofacial sulcus was obliterated. Oral cavity examination presented a tender, fluctuant mass in the upper left gingivolabial sulcus measuring 2cm x 3cm in dimensions (Figure 2). The aspirated content was clear yellow without signs of infection. Patient's medical history was unremarkable.

We planned to do the excision under local anaesthesia. Complete excision of the cyst was achieved via a 3cm incision made in the gingivolabial fold over the convexity of the swelling rather than through mucoperiosteum, which was followed by blunt and sharp dissection to free the lesions from surrounding tissues (Figure 3). During dissection the nasal floor lining was perforated, and was sutured after complete excision. Immediately after the procedure we noticed remarkable decrease in the swelling extra-orally (Figure 4). There were no post-operative complications.

Cyst wall was subjected to histopathological examination and was stated to be composed of low cuboidal epithelium at places and pseudo stratified columnar epithelium at other places, revealing nasolabial cyst.

Discussion

Nasolabial cysts were first described by Zuckercandl in 1882.[3] It is synonymous with nasolaveolar cyst, nasal vestibule cyst, Klestadt's cyst, mucoid cyst of the nose.[4] Usually the cysts are seen in the 4th-5th decade of life time. The incidence of bilateral cyst is 10% in the literature. There are three theories for the formation of the cyst.[4]

- (1) The cyst is formed embryologically by detention cells in the maxilla, medial, and lateral nasal wall.
- (2) The cyst is formed embryologically by detention cells from inferior nasolacrimal channel redundant cells.
- (3) The cyst is formed embryologically by detention cells from the inferior nasolacrimal channel endodermal cells. Exposure to trauma accelerates the formation of the cyst.

The cyst is best palpated bimanually with a finger in the floor of the nose and other in the labial sulcus. The differential diagnosis should include odontogenic, developmental and neoplastic lesions.[5] The odontogenic cysts that should be excluded are periapical inflammatory lesions (granuloma, cyst or abscess) that have thinned out of the bone. Careful examination of the adjacent teeth and testing its vitality can help to rule out this possibility. Because of soft tissue nature, these cysts are not easily detected on direct radiological images. However if present, resorption can be seen on the maxillary bone.[5] Orthopantomogram will show evidence of non vital tooth with radiolucency.



Figure 1 Preoperative view of the lesion extra orally.



Figure 2 Preoperative view of the lesion in nasolabial fold.



Figure 3 Lining of the cyst



Figure 4 Immediate post-operative photo.

Dentigerous cyst also need to be excluded. Usual radiographic appearance of dentigerous cyst is that of a well demarcated radiolucent lesion attached at an acute angle to the cervical area of an unerupted tooth. Radiographic finding of cyst in the nasolabial region that is separated from bony structure and teeth is suggestive of nasolabial cyst.

Another possible cyst of non odontogenic origin is epidermoid or epidermal inclusion cyst. As opposed to normal pink or bluish coloration of nasolabial cyst, this cyst is yellow hue in colour. An example of neoplasm that needs to be excised in this area is minor salivary gland tumor. As oppose to nasolabial cyst, minor salivary gland tumors are usually non fluctuant. There is a reported case using MRI for diagnosing nasolabial cyst to differentiate it from minor salivary gland tumor. In minor salivary gland tumor, MRI will show contrast enhancement of internal lesion compared to non enhancement in nasolabial cyst. Computed tomography is able to demonstrate the soft tissue nature of the cyst as well as bony involvement. As the cyst is benign in nature, there is no bony erosion other than expansile lesion causing thinning of the bone.[6] Microscopically, this cystic structure is composed of a fibrous capsule with an unremarkable layer of pseudo stratified columnar epithelium.[7]

The current treatment of nasolabial cyst is complete excision via sublabial incision.[8] Other mode of treatment that had been described are simple aspiration, injections with a sclerosing agent, destruction by cautery. However these methods are associated with high recurrence rates. Marsupialization of cyst had been previously reported to have high recurrence rate. Alternatively endoscopic cyst marsupialization via transnasal approach can be considered for treatment.[8]

Conclusion

Nasolabial cyst must be kept in mind in differential diagnosis of swelling in nasal vestibule, nasal base, and sublabial area. The diagnosis and treatment by surgical excision via sublabial approach is simple but there has to be made a differential diagnosis with odontogenic, non odontogenic and minor salivary gland tumors of the region. Here in we present a case of a nasolabial cyst and discuss the differential diagnosis and treatment options.

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