

Nasolabial Cyst: Our Experience and Review of Literature

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Dr.Abhay kr.Singh

Dr.Shruti Tandon

Dr.Tarun Malhotra

Dr.Sushil Gaur

Dr.Abhinav Raj

***Corresponding Author: Dr.Shruti Tandon**

Abstract

Nasolabial cyst is a rare non odontogenic development cyst in maxillofacial area. They present as painless unilateral swelling in the nasal alar area. The lesion is submucosal and extraosseous and it expands via the gingivobuccal sulcus. This paper presents a case series of 5 patients in a tertiary care hospital in Ghaziabad, in light of previous literature. Clinical suspicion and examination is the main diagnostic modality. Complete surgical excision is the main treatment modality. We emphasise on aspiration of fluid before sharp dissection at nasal floor to prevent accidental spillage of cyst fluid and to ensure complete excision due to better visualization.

1. Introduction

The nasolabial cyst also known as nasovestibular cyst, nasoglobular cyst, subalar cyst and Klestadt's cyst is a very rare non odontogenic development cyst in the area of upper lip and nasal vestibule. It was first described by Zuckerkandl in 1882. It is reported to have an overall incidence of 0.7% in all mandibular cysts¹. These are painless swelling in the nasal alar region, seldom causing obstruction. Swellings are generally caught in smaller sizes as they cause distortion of cosmetic appearance.

Here in we present our experience of presentation and management of nasolabial cysts in our centre in light of previous literature.

2. Material and Methods

A Retrospective study was designed to include in 4 patients for a period of 2 yr. all patients reported with nasal swelling. Diagnosis was based on clinical examination. A CT scan was done for all patients as supportive radiological evidence. All patients

underwent complete excision of cyst by sublabial approach. Cyst wall and fluid if any was sent for Histopathological examination. Data was Collected for age, sex, clinical findings, duration of disease, cyst location, previous treatment, surgical procedure, histopathology findings and post operative follow up.

3. Discussion

Zuchercandl originally described nasolabial cysts in 1892². In the faciomaxillary region, nonodontogenic cysts might be detected. It is thought that the cysts are nasolacrimal duct remnants. After the medial and lateral nasal processes have fused in the fourth week of intrauterine life, one theory states that epithelial cells become caught in mesenchyme. According to the second theory, epithelial remains from the nasolacrimal duct that extend between the lateral nasal process and maxillary prominence still exist. Other hypotheses contend that cells from the inferior nasolacrimal channel endodermal cells are retained

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during the embryonic development of the cyst. Trauma exposure hastens the cyst's development².

In the fourth to fifth decade, cysts are noticed. They push all soft tissue outward while expanding in the gingivobuccal sulcus. They are submucosal and extraosseous. It results in a dent in the nasal floor, and the patient will appear with a nasal mass. They are often harmless, but subsequent infections can cause pain to develop. 90% of the cysts are unilateral. According to the research, 10% of cases of bilateral cysts occur³. Schuman acknowledged having no preference for one race over another.

All four of our patients reported having a unilateral nasal enlargement, which lasted an average of 14 months. The development was gradual. One of the four individuals had pain. No complaints of nasal blockage or bleeding have been reported. There was no history of surgery or trauma for the same. In line with Marcoviceanu et al. Although some nasolabial cyst patients experience no symptoms, the majority do experience at least one of the three primary symptoms: partial or total nasal obstruction, well-circumscribed swelling, or localised pain.⁴

On otolaryngologic examination, the nasal alar area displayed a single diffuse enlargement. The nasolabial sulcus was completely gone (Fig. 1). One

of four patients complained of pain, and the same patient had a history of having their throats aspirated by a local practitioner several times. On intranasal examination, the anterior nasal vestibule on the afflicted side was partially obliterated. In the mouth, the maxillary labial vestibule was full, both on the corresponding canine and next to the maxillary incisors. The colour of the labial mucosa above was normal (Fig. 2). On palpation the lesion was on "average 3 × 4 cm in size, soft and cystic in consistency, fluctuant, mobile and non-tender". Ct scan of maxillary region was done to determine the extent of lesion and comment on maxillary erosion.

Complete Excision of cyst was planned under general anaesthesia via sublabial approach. Blunt dissection of cyst was carried out to free all surfaces (Fig 3). Decompression of cyst was done to aspirate all the contents of cyst wall to get better visualization of posterior attachment. This step also helped in preventing accidental spillage of cyst contents due to accidental cyst wall rupture as sharp dissection is needed to free the cyst from nasal floor. Cyst wall was sent for histopathological examination. Microscopic examination often reveals lining of multilayered or pseudo stratified, cuboidal to columnar epithelium. All patients were followed up in OPD with uneventful postoperative period and no recurrences have been noted yet.

S.No	AGE	SIDE	SYMPTOMS	SURGERY	FOLLOWUP	RECURRENCE
1	40	F	Swelling	Complete excision, after intraop decompression	18m	No
2	45	M	Swelling +pain	Complete excision	12m	No
3	36	M	Swelling + nasal obstruction	Complete excision, after intraop decompression	9m	No
4	18	F	Swelling +pain	Complete excision, after intraop decompression	2m	No

Table 1: TABLE SHOWING STUDY PARAMETERS IN OUR PATIENTS

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Various treatment modalities have been suggested in the literature. Intralesional sclerosant injection, simple aspiration and destruction by cautery have been attempted with high recurrence rates^{5,6}. According to Su Cy et al, a transnasal approach of endoscopic marsupialisation of nasolabial cysts is suggested⁷ with variable results through the literature. In a prospective randomised study by Lee JY et al in 2009, it was concluded that both methods are effective⁸. In our experience intraoperative aspiration of cyst before complete enucleation helps to reduce recurrences. Our findings are in consensus with Allard R H et al.⁹ Cryosurgery is also one of the suggested options where the base is cauterized with

cryo probe after excision where complete cyst removal is doubtful.¹⁰

4. Conclusion

Nasolabial cyst is one the rare presentations of orofacial cysts. It presents as painless slowly progressive painless mass in nasolabial region. It mostly presents in 4th-5th decade of life with male preponderance. Clinical examination is the diagnostic modality. Complete Excision of the cyst wall via sublabial approach is the main treatment modality.



Figure 1: OBLITERATION OF NASOLABIAL FOLD IN PATIENT



Figure 2: CT IMAGE SHOWING LEFT NASOLABIAL CYST



Figure 3: INTRA OPERATIVE DISSECTION OF NASOLABIAL CYST

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