A CASE REPORT OF NASOALVEOLAR CYST: AN AESTHETIC DEFECT IN LEFT ALAR REGION.

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ABSTRACT A nasolabial cyst is a rare condition. It accounts for about 0.7% of all cases of maxillofacial cysts and only 2.5% of the maxillofacial non-odontogenic cysts. This cyst is frequently asymptomatic, the most usual sign being alar nose elevation. Despite the low occurrence of nasolabial cysts, it is important to recognize the clinical characteristics of this lesion. The purpose of this case report is to review the literature and discuss the histomorphology of this condition, showing treatment by surgical excision.

KEYWORDS Nasolabial cyst, Nasoalveolar cyst, non-odontogenic cyst

Introduction
Nasolabial cysts are uncommonly diagnosed non-odontogenic soft tissue lesions often present as an extraosseous swelling in the nasolabial fold region. They are likely to remain undetected unless and until they become infected or are associated with facial deformities. Histologically, it is lined with respiratory-type cylindrical epithelium with goblet cells. The aim of this case report is to present and discuss the surgical management of a case of the nasolabial cyst and to briefly review the literature.

Case Report
A 34-year-old female patient with no known comorbidities came to ENT OPD complaining of swelling in the left nasal cavity that she noticed about 2 months ago. The swelling was seen to gradually increase in size. It was associated with the development of left-sided headache and left-sided nasal obstruction. There was no history of fever, trauma or surgery prior to the onset of swelling. In addition, there were no complaints of pain over the swelling, nasal discharge, or bleeding.

On examination, there was minimal facial asymmetry due to a bulge on the left side of the nose. The swelling was seen to partially obstruct the anterior aspect of the left nostril. It was about 2.0 × 2.0 cm in size, soft, non-tender, causing obliteration of the nasolabial fold on the left. The intra-oral examination was normal.

CT scan showed a well-defined soft tissue lesion of approx. 26*18*20mm along the lateral wall of the left anterior nasal cavity, projecting into the vestibule. Inferiorly, mass was seen extending on the left side of the upper lip anterior to the left half of the alveolar process of the maxilla, causing thinning and scalloping of the underlying bone. Medially, a lesion was seen abutting the nasal spine of the maxilla and inferior most part of the cartilaginous nasal septum. Superiorly, a lesion was seen connecting the frontal process of the left maxilla. Posteriorly, a lesion was seen indenting the left inferior nasal turbinate. No extension was seen into the left maxillary sinus.
Making the provisional diagnosis of the nasolabial cyst, surgical excision of the lesion was done by a sublabial approach under GA.

Histopathological examination of intra-OP sample showed respiratory epithelium (pseudostratified ciliated columnar) with goblet cells compatible with nasolabial cysts.

Postoperatively, the patient had mild facial oedema on the left side of the face, which subsided over weeks. The patient is being followed up on an OPD basis.

Discussion and Conclusion

The nasolabial cyst is a rare condition. It accounts for about 0.7% of all cases of maxillofacial cysts and only 2.5% of the maxillofacial non-odontogenic cysts [1]. These cysts are unilateral in 90% of cases and bilateral in 10%. They are seen commonly in black women in the 4th to 5th decades of life [2]. It has been given multiple names, including nasoalveolar and Klestadt cyst. In 1951, the term nasolabial cyst was introduced by Rao [3]. This term is more accurate since the cysts are situated wholly within soft tissue, unlike nasoalveolar cysts, which typically cause a maxillary bone defect. Though there were several complex discussions regarding pathogenesis and clinical presentation, Bruggemann proposed the most acceptable theory in 1920, which suggests that the nasolabial cyst arises from the epithelial remnants of the lower anterior part of the nasolacrimal duct [4]. Although the cyst is originally developmental, it typically does not manifest until adulthood. Patients often present with painless swelling, mostly in the left side of the upper lip adjacent to the nasal alae, which is very slow-growing in nature. These cysts vary from 1 cm to 5 cm and infrequently erode the underlying bone if they grow to a large size. The submucosal location of nasolabial cysts at the anterior nasal floor is both distinctive and constant, and this was described by Bull et al. in 1967 [5]. Patients with nasolabial cysts can be asymptomatic; however, most patients have at least one of the three key symptoms: partial or complete nasal obstruction, well-circumscribed swelling, or localized pain [1]. A well-localized fluctuating swelling with a cystic consistency in the nasolabial sulcus has been reported as a definitive sign of a nasolabial cyst by Graamans et al. [6]. Brown-Kelly first described the histopathology of this lesion in 1898 [7]. The cyst consists of respiratory epithelium (pseudostratified ciliated cylindrical or stratified ciliated cylindrical epithelium with goblet cells). However, squamous metaplasia may occur in infected cysts [8]. The fluid contained within cysts is produced by goblet cells.

Differential diagnosis of nasolabial cysts is made straightforward by their extraosseous location. The dentoalveolar abscess is the most relevant differential, which can be easily excluded by testing the affected teeth’ vitality. Other differential diagnoses include oronasal cysts, nasopalatine duct cysts, and dermoid and epidermoid cysts. The nasolabial cyst, an extraosseous soft tissue mass, can easily be differentiated from a nasopalatine duct cyst with the help of an MRI, as the latter is an intraosseous cyst. Likewise, they can be differentiated from dermoid and epidermoid cysts, as the colour of the mucosa shows a yellow discolouration. In contrast, in nasolabial cysts, the colour of the mucosa is a natural pink hue or blue-tinged.

Additionally, epidermoid and dermoid cysts are typically seen in childhood, whereas nasolabial cysts are more commonly seen in adults. The tests for diagnosis include diagnostic nasal endoscopy, CT and MRI. Several modalities in the management of nasolabial cysts include endoscopic marsupialization, surgical excision, incision and drainage, injection of sclerotic agents, simple aspiration and cautery. Excluding endoscopic marsupialization and complete surgical excision, all the other modalities
have a high recurrence rate [5,6]. The indications of surgery are to establish a diagnosis, prevent cyst infection, and improve any cosmetic deformity. The commonest approach is intraoral enucleation under local anaesthesia by taking a sublabial incision in the upper buccal sulcus, which allows a wider surgical field and more guarantee of complete cyst excision without tearing the nasal mucosa or entering the maxillary sinus. Because this cyst is usually closely related to the floor of the nose, perforation of the nasal mucosa may be expected during its removal. When very small perforations are caused, they can be left untreated; however, larger ones must be sutured.

**In conclusion,** nasolabial cysts are rare soft-tissue cysts. It is believed that its occurrence is more than reported in the literature. Complete surgical excision using an open approach and histological examination of the excised specimen is considered the best treatment for nasolabial cysts. The diagnosis in our case was based on clinical findings, which were confirmed by histopathology reporting. Also, all the features of this rare entity were consistent with the literature.

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**Conflict of interest**

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**References**


