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Case Report *Volume 6 Issue 1*

Management of Nasolabial Cyst in a 59 Year Old Female

Gandhi S[1], Saindani S[2]*, Datta P[3] and Nair V[3]

[1]Consultant at Deenanath Mangeshkar Hospital, India
[2]Junior Consultant at Deenanath Mangeshkar Hospital, India
[3]Resident Doctor at Deenanath Mangeshkar Hospital, India

***Corresponding author:** Dr Shradha Saindani, Consultant, Deenanath Mangeshkar Hospital, Pune, India, Tel: 8208065061; Email: shradhasaindani26@gmail.com

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Abstract

Nasolabial cysts are rare, benign, non-odontogenic cysts arising from embryological remnants of the nasolacrimal duct. They typically present as slow-growing, painless swellings in the nasolabial region. Here, we report a case of a 59-year-old female with an 8-month history of a right nasolabial cyst, emphasizing clinical presentation, diagnosis, and management.

Keywords: Nasolabial Cyst; Maxillofacial Cyst; Non-Odontogenic Cyst; Sublabial Approach; Case Report

Abbreviations

FNAC: Fine Needle Aspiration Cytology; MRI: Magnetic Resonance Imaging.

Introduction

Nasolabial cysts are uncommon lesions, accounting for less than 0.7% of all maxillofacial cysts [1]. They occur due to developmental anomalies of the nasolacrimal duct epithelium [2]. Although benign, these cysts may cause cosmetic concerns, nasal obstruction, or secondary infection. Early diagnosis and appropriate surgical intervention can prevent complications [3,4].

Case Report

A 59-year-old female presented with an 8-month history of a painless swelling in the right nasolabial region. The swelling gradually increased in size, causing mild discomfort and slight nasal obstruction. There was no history of trauma, nasal discharge, or difficulty in mastication. Patient presented with chief complaints of a well-defined, non-tender, fluctuant swelling in the right nasolabial fold. The overlying skin was normal without signs of inflammation. Intraoral examination revealed a soft swelling in the upper gingivobuccal sulcus without mucosal involvement. There were no palpable cervical lymph nodes. Computed tomography (CT-Scan) was done that confirmed the cystic nature of the lesion and ruled out any bony erosion. Patient was then planned for surgical; excision.

Surgical Technique

Surgical excision via a sublabial approach was performed under general anesthesia. The cyst was dissected carefully to avoid damage to adjacent structures. Complete excision was ensured to prevent recurrence. Postoperatively, the patient recovered uneventfully. Patient was given analgesic and antibiotic coverage and oral rinses with antiseptic solution. Histopathological examination confirmed the diagnosis of a nasolabial cyst lined by pseudostratified columnar

epithelium with mucous cells.

Outcome and Follow-Up

The postoperative course was uneventful. The patient reported significant cosmetic and functional improvement. Follow-up at 3 months showed no recurrence or complications (Figures 1-3).

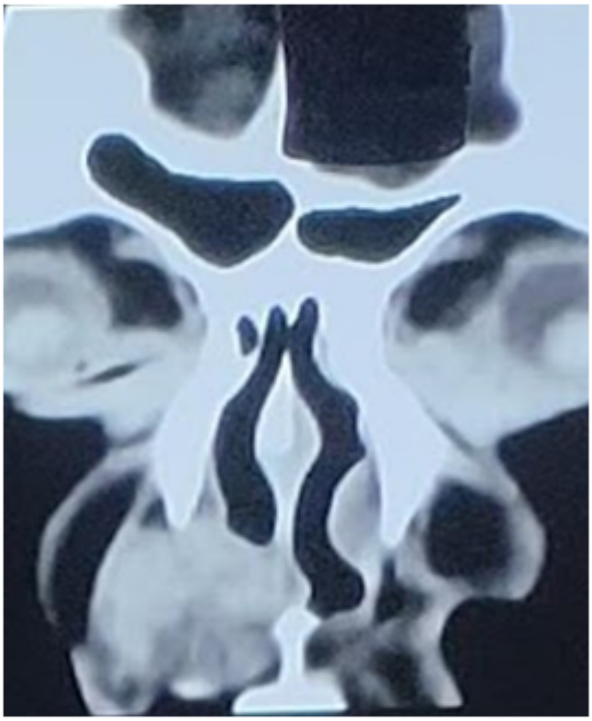

Figure 1: Coronal view CT scan: A well-defined hyper dense lesion with cystic internal content at right nasolabial region bulging into the nasal vestibule and nasal cavity. No bony erosions.

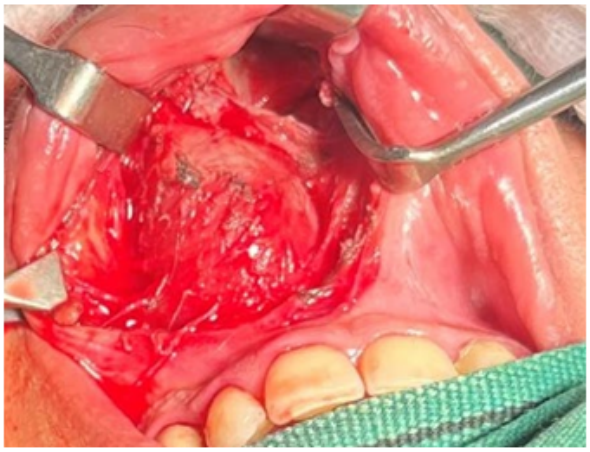

Figure 2: Intraoperative image of the cyst.

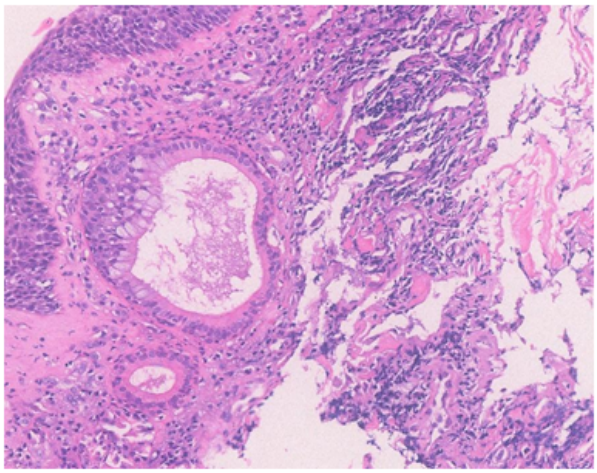

Figure 3: Histopatholgy slide (A): Epithelial lining shows stratified squamous epithelium. Underlying subepithelium shows a ruptured cyst with foamy histiocystes, lymphocytes and few neutrophils.

Discussion

Nasolabial cysts arise from misplaced epithelial remnants of the nasolacrimal duct [1,2]. A nasolabial cyst originates from remnants of the nasolacrimal duct epithelium trapped during the fusion of the maxillary, medial nasal, and lateral nasal processes (4th–6th week of gestation). Normally, the nasolacrimal grooveforms and canalizes into the nasolacrimal duct, but failure of complete regression can lead to cyst formation. The cyst is lined by pseudostratified columnar epithelium, similar to the nasolacrimal duct [1]. They are typically asymptomatic but may cause cosmetic deformity, nasal obstruction, or secondary infection [2,3]. Differential diagnosis can be Odontogenic Cysts like Radicular Cyst, Dentigerous Cyst, Odontogenic Keratocyst. Non-Odontogenic cyst like Nasopalatine Duct Cyst, Dermoid/Epidermoid Cyst.

Mucous Retention Cyst, Lipoma, Neoplastic Lesions like Salivary Gland Tumors Neurofibroma/Schwannoma, etc. Nasolabial cyst can be differentiated from other cysts and swelling based in the clinical examination, site, imaging studies like CT scan and MRI scan and Fine needle aspiration cytology (FNAC) [3,4].

Imaging, particularly Magnetic Resonance imaging (MRI) helps in diagnosis, and surgical excision remains the treatment of choice. MRI studies describe it as a well-circumscribed, T2 hyperintense, non-enhancing lesion [4]. MRI provides superior soft tissue resolution and helps differentiate the cyst from other lesions. CT scan is done to rule out any bony erosion [5]. (FNAC) yields mostly brown to yellowish fluid with no malignant cells, supporting a benign

cystic lesion [6,7]. Challenges in Managing Nasolabial Cyst

- Delayed Diagnosis – Often misdiagnosed.
- Cosmetic Concerns – Causes facial asymmetry.
- Infection Risk – May lead to abscess formation.
- Surgical Difficulty – Close to vital structures.
- Recurrence – Incomplete excision can cause relapse.
- Patient Delay – Often ignored until symptomatic.

Solution: Complete surgical excision (sublabial approach) to prevent recurrence.

The sublabial approach offers an excellent cosmetic outcome with minimal morbidity. Other techniques are transoral Excision (Intraoral Approach), Endoscopic marsupialisation and external approach. Recurrence (rare with complete excision). Histopathology of nasolabial cysts typically shows pseudostratified columnar epithelium with goblet cells and a fibrous connective tissue wall. The presence of respiratory-type epithelium and absence of odontogenic or skin appendage structures help in the definitive diagnosis [6,7]. Post-surgical complications seen are Infection, Infraorbital nerve injury (numbness) and Mucocele formation [8].

Conclusion

Nasolabial cysts, though rare, should be considered in the differential diagnosis of nasolabial swellings. Early diagnosis and complete excision provide excellent results with minimal recurrence.

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