

Nasolabial Cyst: Diagnosis and Treatment**Kumar Vijay¹, Ahmad Zeeshan², Rahman Asfia³, Kumari Lovely^{4*}**¹Assistant Professor, Department of ENT, ESIC Medical College, Bihta, Patna²Senior Resident, Department of ENT, ESIC Medical College, Bihta, Patna³Senior Resident, Department of ENT, ESIC Medical College, Bihta, Patna⁴Assistant Professor, Department of Community Medicine, ESIC Medical College, Bihta, Patna

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Abstract:

Nasolabial cysts also known as Klestadt's cyst is a benign, slow-growing, nonodontogenic, extraosseous soft tissue lesion located in the nasal alar region near alar cartilage below the nasolabial fold. They present as painless localised swelling below lip and ala of nose with varying degrees of nasal obstruction and obliteration of nasolabial fold. Nasolabial cysts can be removed either by sublabial approach, injection of sclerosing agent in cyst or by Trans nasal endoscopic marsupialisation. This case series includes case summaries of three female patients admitted to the ENT Department of ESICMCH, Bihta, Patna over a period of one year. Informed consent was taken from all patients. The series shows classical case presentations with proper radiological evidence, treatment and points that nasolabial cyst is an important differential diagnosis in swelling of face.

Keywords: Nasolabial cyst, endoscopic marsupialization.

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Introduction

A nasolabial cyst is majorly a unilateral lesion (90%) extending into the lower nasal meatus, the upper gingivolabial sulcus and the floor of the nasal vestibule [1,2]. The pathogenesis of nasolabial cysts is uncertain; however, there are two main theories. Some authors suggest that these lesions originate from displaced epithelium of the nasolacrimal duct remnants, while others suggest that it is a developmental fissural cyst originating from epithelial remnants entrapped between the lateral nasal, globular, and maxillary processes [3]. Among all maxillofacial cyst its overall incidence is 0.7%.

Nasolabial cysts are found most often in female adults in the fourth to fifth decades of life with female predilection of nearly 3:1. Sometimes facial Cellulitis can occur after expansion of secondary infection in cyst

These cysts usually occur unilaterally (90%), but bilateral lesions have been reported [4,5]. When palpated the lesion is soft and fluctuant in consistency. Patients generally report to clinician for the cosmetic reason or problem of nasal blockage.

CT and MRI are two important radiological investigations which reveal the extent and relation of lesion to surrounding structures [6,7]. CT imaging is preferable to MRI due to its lower cost, although the MRI provides excellent soft tissue

contrast resolution without ionizing radiation. Plain x-ray is not significant unless and until there is no bone erosion.

Histopathology revealed, Cyst is lined with pseudo stratified columnar epithelium. Nasolabial cysts can be removed either by sublabial approach, injection of sclerosing agent in cyst or by Trans nasal endoscopic marsupialisation [8]. Enucleation by sublabial approach is diagnostic, therapeutic and cosmetically better. Hence it is commonly preferred. Recurrence does not happen if the wall of the sac is completely removed.

Case Series:

This retrospective study involved cases of nasolabial cyst treated from 1st May 2021 to 30th April 2022. There were 3 cases which were operated in one year in the department of ENT, ESICMCH, Bihta, Patna. Informed consent was taken from all the patients before initiation of diagnostic treatment.

Case 1

We present the case of a middle-aged woman, 66 years old with Registration No. 883/2021, who came to ENT OPD with chief complaints of swelling in Left side of nose for the last 8 years and decreased nasal breathing from the right side for the last 4 years. The swelling was initially small in size but in the last 4 years it has progressed to

present size. No history of pain, fever, bleeding from nose. No history of trauma.

On examination, a round diffuse swelling of approximately 3*3cm seen in the right nasolabial region. On palpation the inspection finding was confirmed. The swelling was cystic, fluctuant,

painless extending to the floor of the nose and lateral wall mildly compromising anterior nasal passage.

No discharge or change of skin found on swelling. Intraorally, there was fullness of maxillary labial vestibule.



Figure 1: Image showing cyst in left nasolabial region

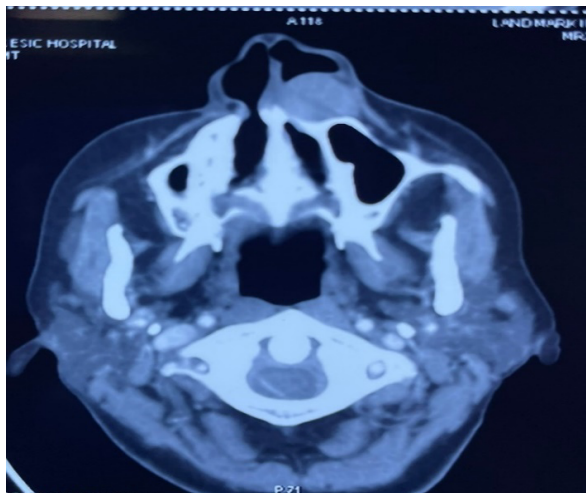


Figure 2:

Image showing (Computed tomography) CT Scan hyperdense lesion in Right & Left nasolabial fold



Figure 3:

CT nose and pns was advised to the patient and it revealed non-enhancing hyperdense lesion in right nasolabial fold causing thinning of outer plate of maxilla and protruding into the right nasal cavity.

A final diagnosis of unilateral nasolabial cysts was given based on the clinical and CT scan finding. The cyst was excised by the sublabial approach under general anaesthesia.

Incision was made in the labial mucosa extending from lateral incisor to 2nd molar and the lesion was carefully dissected and separated from labial mucosa, underlying maxillary alveolus, overlying skin and nasal mucosa and removed. The surgery went uneventful, wound was closed in layers and

the patient was shifted out of OT in stable condition.

The cystic fluid was sent for Cytopathological examination which showed no aerobic pyogenic organisms. Post operatively patient complaint of swelling on right side of cheek and mild headache. Ice fomentation on cheek was advised which found to be very effective and patient was discharged after two days on oral medication.

There was no complain of numbness of cheek or bleeding from nose. After 1 week of operation patient was followed up and was much better than before. There was mild pain on suture site. On examination suture line was healthy.

Case 2

A 53-year-old female, presented with complaints of nasal obstruction from left side of nose for last 2 years. The obstruction is continuous in nature associated with swelling in left nasal cavity which is also felt on left nasolabial fold.

There is no association of discharge or bleeding from nose. No history of pain or trauma. On clinical examination, a diffuse swelling of approximately 2*2cm fell on the left floor of nose. It was soft in consistency, non-tender. CT nose and pns showed well demarcated rounded swelling bulging into the left nasal cavity. The diagnosis of nasolabial cyst on the left side was made and the patient underwent general anaesthesia for excision of cyst. The cyst was removed in toto and the cavity washed well with betadine. Closure was done in 2 layers and haemostasis achieved. The entire postoperative period was without any

complications and patient recovered fully after 2 weeks.

Case 3

Another female patient, aged 30years, presented to ESICMCH Bihta, with chief complaints of nasal obstruction and alar deformity. On clinical examination bulging of left alar region was found.

The size of swelling was approximately 3*2 CM. Just like the previous case the swelling was cystic in nature with no signs of inflammation.

The findings were confirmed on nasal endoscopy as well. CT nose pns confirmed cystic soft tissue mass in the left premaxillary region without any bone erosion. The patient was posted for surgery under general anaesthesia and the cyst was excised using transoral approach. Sample was sent for HPE. On regular follow up after surgery, there was no complaint from the patient.



Figure 4:
Image showing intraoperative lesion of nasolabial cyst



Figure 5:

Discussion

Nasolabial cysts are a rare disorder observed primarily among persons of African ancestry in the Western world. They were first described by Zuckerkandl [9,10]. These cysts are most commonly seen among adults, with peak prevalence in the fourth and fifth decades of life, as was also seen in our case report. The diagnosis in our study is made on clinical presentation of swelling with nasal blockage itself and it was confirmed by CT scan. In some cases, the nasolabial cyst becomes apparent due to a distinct facial asymmetry [11,12].

These cysts are generally asymptomatic but may grow large and also extend inferiorly into the labial sulcus, with an elevation of the nasal floor as found in our patient. Nasolabial cysts mimic other lesions

of nasal vestibule and should be clearly differentiated from that.

Periapical abscess arising from maxillary anterior dentition is an inflammatory lesion. Inflammatory signs and presence of a nonvital tooth makes it different from nasolabial cyst. Odontogenic cyst such as dentigerous cyst may perforate the cortex and present in the soft tissue like nasolabial cyst. It can be differentiated by presence of radiolucency on the radiograph and their intraosseous location.

Epidermoid and dermoid cysts are typically in childhood, whereas nasolabial cysts more commonly seen in an adult [13]. The safety of the teeth in the nasolabial region is clinically important in differentiating from the other lesions. Radiological examination is important in differential diagnosis of odontogenic and

nonodontogenic cysts of the region. There is no erosion of bone especially in the early stages of the disease [14].

The treatment of choice remains simple: enucleation with an intraoral sublabial approach. Infact, it is the preferred treatment reported in most of the published papers [15,16,17,18,19].

Conclusion

This report has presented classic clinical features and radiological findings of nasolabial cyst. Nasolabial cysts are rare lesions. Patients commonly present with a well-confined swelling near the nasolabial area and sometimes nasal obstruction. This lesion should always be kept considered in the differential diagnosis of soft tissue swelling in the nasal alar region. Enucleation is the treatment of choice with low recurrence rate.

Limitations

There was limited number of patients, of the above mentioned pathology, who presented to health facilities, as patients were mostly asymptomatic. Most of the patients were unaware of their disease, unless they got symptoms like nasal obstruction and facial deformity.

Nasolabial cyst, mostly present in female, especially from rural background and low socio economic status. This may be a reason for low awareness towards health and health facilities.

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