

A Case Report

Nasolabial Cyst: A Case Report

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Since 4 Years

Introduction

In 1920, Bruggemann, arises in the lower part of nasolacrimal ducts. In 1969 Roed-Petersen, nasolacrimal duct are lined by pseudostratified columnar epithelium .In 1993, Klestadt suggested, they arise from junction of the globular process, the lateral nasal process and the maxillary process as a result of proliferation of entrapped epithelium along the fusion line.

Nasolabial cyst is a non-odontogenic, soft tissue cyst characterized by its extra osseous location in the nasal alar region. It is synonymous with nasoalveolar cyst, nasal vestibule cyst, nasal wing cyst and mucoid cyst of the nose. Etiopathogenesis: Two theories have been suggested to explain the origin of nasolabial cyst.

Klestadt in 1993 suggested that they arise from trapped epithelium at the point where the maxillary, medial nasal, and lateral nasal processes fuse which become inclusion cyst. However, a lack of evidence to support the idea of embryonic epithelial entrapment in this location prompted many researchers to discard this hypothesis. Bruggeman in 1920 had suggested that nasolabial cysts develop from remnants of the embryonic nasolacrimal ducts. This theory is supported by the fact that the nasolacrimal ducts are lined with pseudostratified columnar epithelium, which is the type of epithelium found in the nasolabial cyst cavity.

Cysts of the Jaws

A. Epithelial-lined cysts

1. Developmental Origin

(a) Odontogenic

- i. Gingival cyst of infants
- ii. Odontogenic keratocyst
- iii. Dentigerous cyst
- iv. Eruption cyst

- v. Gingival cyst of adults
- vi. Developmental lateral periodontal cyst
- vii Botryoid odontogenic cyst
- viii Glandular odontogenic cyst
- ix Calcifying odontogenic cyst

(b) Non-odontogenic

- i Midpalatal raphe cyst of infants
- ii Nasopalatine duct cyst
- iii Nasolabial cyst

2. Inflammatory Origin

- i Radicular cyst, apical and lateral
- ii Residual cyst
- iii Paradental cyst and juvenile paradental cyst
- iv Inflammatory collateral cyst

B. Non-epithelial-lined cysts

1. Solitary bone cyst
2. Aneurysmal bone cyst

CLINICAL FEATURES

It is a rare Non odontogenic cyst arising in the nasolabial region, rarely invades bone. More predilection for women. Affect in fourth or fifth decade of life.

It is characterized by their extra-osseous occurrence and by their constant location under the alae nasi. As a result of enlargement, they may present in the floor of the nose and in the upper labial sulcus of the mouth. The patients usually present with a slowly growing asymptomatic swelling.

Radiographic Features

Location. Nasolabial cysts are primarily soft tissue lesions located adjacent to the

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alveolar process above the apices of the incisors. Because this is a soft tissue lesion, plain radiographs may not show any detectable changes. The investigation could include either computed tomography (CT) or magnetic resonance imaging (MRI), both of which can provide an image of soft tissues. Effects on surrounding structures. Occasionally a cyst causes erosion of the underlying bone producing an increased radiolucency of the alveolar process beneath the cyst and apical to the incisors. Also, the usual outline of the inferior border of the nasal fossa may become distorted, resulting in a posterior bowing of this margin.

Histological Features

A histological analysis of collection showed that all were lined predominantly by non-ciliated pseudostratified columnar epithelium. Goblet cells, are present.

Differential Diagnosis

- Lateral periodontal cyst
- Periapical cyst
- Dentigerous cyst
- Nasopalatine duct cyst
- Median palatal cyst
- Nasal furuncle

CASE REPORT

A 45yr old female patient reported with chief complaint of swelling in upper right front region of jaw since 4 months .She had swelling in upper right front region of the jaw which gradually increased to attain the present size.Patient took medication but swelling did not subsided & was not associated with any pain or any discharge. (FIG 1,2 &3).

On Inspection

A solitary ovoid swelling in the right front maxilla , Size –approx 2 × 3 cms, Extension, Skin over the swelling was slightly stretched, No surface pulsation ,no secondary changes seen.It is Soft in consistency and freely movable. Skin over the swelling was pinchable .Obliteration of the upper right labial vestibule due to swelling.

Investigations

Radiological-IOPA irt 11,12, occlusal view of maxilla, OPG ,Total hemogram and Histopathology .

Besides the presence of a non-tender fluctuant swelling in the alar region, the radiographic findings help to establish the diagnosis. Radiographic finding of cyst in the nasolabial region that are separated from bony structure and teeth is suggestive of nasolabial cyst(FIG 4&5).OPG shows no abnormality(FIG 6), after injecting contrast medium, enhancement was observed in the lesion.(FIG 7)

Biopsy

2.0 cm extraosseous cyst anterior to nasal floor/inferior nasal turbinate with protrusion of the upper lip, anterosuperior displacement of nasal ala, and fullness of the mucobuccal fold(FIG 8).

Histopathology

Cyst is lined by Pseudostratified columnar epithelium,with goblet cells(FIG 9). Final diagnosis:On considering patient history,clinical, and histological findings the final diagnosis of nasiolabial cyst was given.

Treatment

Enucleation of Cyst was done under local anesthesia(FIG 8) .

Prognosis

Follow-up was done and No post-operative complication was noted.(FIG 10 &11).



Figure-1

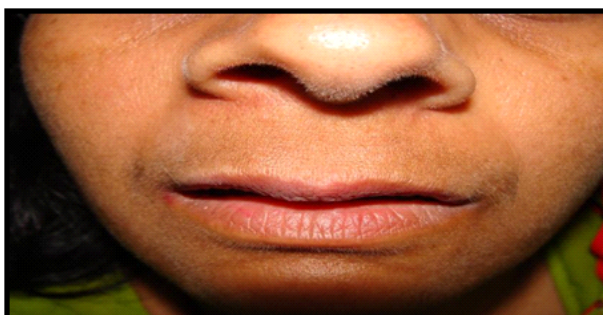


Figure-2



Figure-3

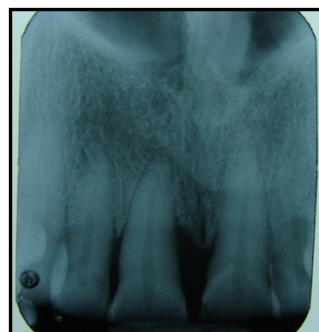


Figure-4

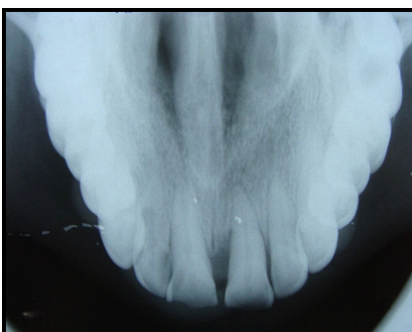


Figure-5

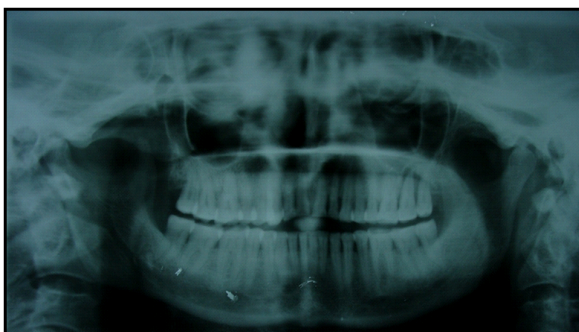


Figure-6



Figure-7

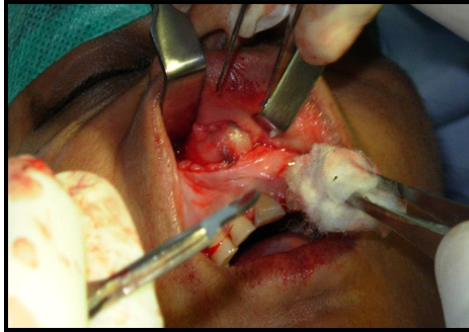


Figure-8

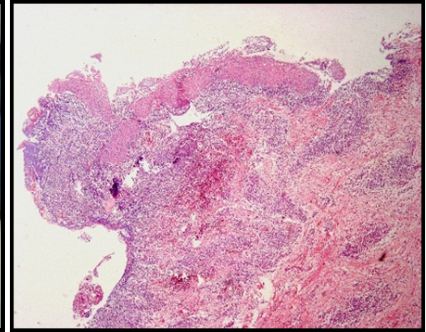


Figure-9



Figure-10

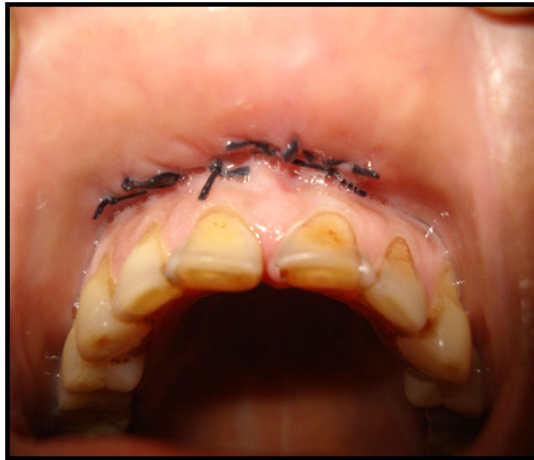


Figure-11

DISCUSSION

Nasolabial cysts are rare soft tissue non-odontogenic cysts that develop between the nasal vestibule and upper lip. The incidence of nasolabial cysts is 0.7% of all maxillofacial cysts. The size measures 1 to 5 cm in diameter. These cysts in 90% of cases are unilateral, and 10% bilateral, they are commonly seen in the black women in the fourth to fifth decades of life. Zuckerkandl was the first to describe the cyst in 1882. It is not uncommon to misdiagnose nasolabial cysts and not treat them appropriately because of their rarity. The pathogenesis is uncertain with multiple theories. In 1920 Bruggemann proposed the most acceptable theory, which suggests that the nasolabial cyst arises from the remnants of the epithelium in the anterior lower part of the nasolacrimal duct. The origin of the cyst is developmental, although it does not manifest until adulthood, and the typical presentation of a nasolabial cyst is a painless localized swelling with varying degrees of nasal obstruction. The location and presentation of these cysts make them diagnosis nearly clinical exclusively. The diagnosis tests include nasal scope, CT and MRI. Both CT and MRI are valuable in revealing the origin of the cysts and avoids unnecessary needle aspiration or dental surgery. Surgery is equally diagnostic and curative by allowing histological examination

CONCLUSION

Nasolabial cyst is a benign condition and the most common complaints was a swelling or fullness in the nasolabial region and nasal cavity. In the majority of cases, one should be able to diagnose it on clinical assessment. Radiological investigation such as CT scan can help to establish the diagnosis. Duration of the symptoms does not correlate to the size of lesion but can cause thinning and bone remodeling of the bone. Complete surgical excision via sublabial incision is the treatment of choice.

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