

Bilateral Nasolabial Cyst as a Rare Case Report

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Abstract: *Nasolabial cyst, also known as Klestadt's cyst is an uncommon nonodontogenic cyst. Nasolabial cyst is a non-odontogenic, extraosseous, soft tissue cyst, commonly unilateral, located in the nasolabial fold. Bilateral nasolabial cysts are of rare occurrence. Despite the uncommon occurrence of nasolabial cysts, it is important to recognize the characteristics of this lesion, and to make an accurate diagnosis.*

Keywords: Nasolabial, Bilateral

1. Introduction

Nasolabial cysts, first defined in 1882 by Zuckerkandl, are rare non-odontogenic developmental masses that originate from maxillofacial soft tissues (1). Nasolabial cysts are usually unilateral. They grow submucosally and extraosseously in the nasolabial region and they cause nasal obstruction and/or cosmetic deformity (3). Commonly seen in adults, it has peak prevalence in the 4th-5th decade of life. A greater incidence is seen in females (4:1). It is usually unilateral in occurrence with no predilection in side. However, 11.2% cases have been reported to be bilateral. It represents about 0.7% of all cysts in the maxillofacial region, 2.5% of the non-odontogenic cysts. These cysts unless infected causes painless swelling around the nasal vestibule and upper lip and infrequently lead to nasal stuffiness. Although uncommon in occurrence, it is imperative for the clinician to make an accurate diagnosis and provide appropriate treatment (8).

2. Case Report

A 43-year-old female patient was admitted to the Dept. of ENT, SKIMS-MCH, Srinagar, with the complaints of painless swelling in the region of nasal ala that had been growing for a year and of nasal obstruction in the left nostril for the past two months. She had no history of congenital anomaly, surgery or trauma. The lesion was painless and there was no history of epistaxis or nasal discharge. Extraoral examination revealed slight facial asymmetry with slight elevation of the ala nasi and deformation of the left nasolabial sulcus and fullness in the superior gingivolabial sulcus, was present. On palpation, the lesion was nodular, soft, fluctuant, well circumscribed bilaterally and did not extend beyond the soft tissues. In the paranasal sinus computed tomography (figure 1), an ovoid, well-contoured, osseous, non-destructive mass with soft tissue density was observed on the upper jaw anterior in the subcutaneous fat tissue with dimensions of 20×13 mm on the right and 26×22 mm on the left. The patient underwent bilateral nasolabial cyst excision with the sub labial approach under general anesthesia (figure 2).

Differentials of a cyst in the region of the nasolabial fold include odontogenic cysts such as dental or dentigerous cysts with cortical perforation. But they typically are related to the tooth and are of osseous lesions.

In the histopathological sections, occasional fibrocollagenous cyst walls surrounded by pseudostratified columnar epithelium that included squamous metaplasia

regions were observed. Histopathological examination was reported as a bilateral nasolabial cyst. The patient did not develop any post-operative complications, and relapse was not observed in her 1-year-long follow up.

3. Discussion

Nasolabial cyst, also called as the nasoalveolar cyst or Klestadt's cyst, is a relatively uncommon benign, non-odontogenic, extraosseous maxillary cyst.[1] Nasolabial cysts account for approximately 0.6% of all cysts of the jaws (3). The cysts are generally observed in middle-aged (40-60 year olds) individuals and more in women's (unilateral cysts 4 times more and bilateral cysts 5.5 times more), and more commonly in Africans (1). Cysts in most patients are unilateral and only 10% are bilateral, as was the case in our patient (5).

Nasolabial cysts grow slowly, manifest as painless swelling in the nasolabial region and superior gingivolabial sulcus, and they cause deletion of the nasolabial folds, deformity in the face, and nasal obstruction due to elevation in the nasal base. Secondary infections can cause pain (5).

There are three theories for the formation of the cyst-

- 1) The cyst is formed embryologically by detention cells in the maxilla, medial and lateral nasal wall.
- 2) The cyst is formed embryologically by detention cells from the inferior nasolacrimal channel redundant cells.
- 3) The cyst is formed embryologically by detention cells from the inferior nasolacrimal channel endodermal cells.

The histopathological similarity between the nasolabial cyst wall and the nasolacrimal duct epithelium further validates this theory.

Diagnosis was made by the correlation of clinical and histopathological findings. Bimanual palpation, performed by putting one finger on the nasal base and another on the superior labial sulcus, is a good examination method. Paranasal sinus CT is the best radiological method to reveal the cyst localization, structure, its relationship with surrounding tissues, and bone erosion (5). Differentials of a cyst in the region of the nasolabial fold include odontogenic cysts such as dental or dentigerous cysts with cortical perforation. But they typically are related to the tooth and are osseous lesions. Incisive cyst or the nasopalatine cyst is an anterior midline maxillary lesion and is located either in the labial or the oral aspect. Globulomaxillary cysts are located off midline between the lateral incisor and canine teeth in the maxillary bone. Dermoids are usually midline or

located in the medial canthal region. Other uncommon differentials include nasolacrimal mucocele frunculosis of base of the nose, and neoplasms of base of the nose.

The diagnosis of the lesion can be made by clinical, radiologic examination and histopathological examination. The treatment can be made by surgical excision, injection of sclerosing materials in the cyst, and endoscopic marsupialization methods (7). Excision of the cyst via the sublabial incision is the most preferred treatment modality with very low recurrence rate and cosmetic reasons. Sublabial incision is much better than external incision especially in terms of cosmetic reasons. Recurrence does not happen if the wall of the sac is completely removed. Malignant transformation is exceedingly rare and is reported in the literature only once (9).

4. Conclusion

Bilateral nasolabial cysts must be considered in differential diagnosis in patients that are admitted with a facial deformity and cystic mass in the nasal vestibule, nasal base and sublabial area. Although uncommon in occurrence, it is imperative for the clinician to make an accurate diagnosis and provide appropriate treatment. Excision with the sublabial approach is a widely-used method that has proved to be successful.

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Figure 1



Figure 2