

CASE REPORT

Transnasal Marsupialization of Nasolabial Cyst: A Case Report

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ABSTRACT

Aim: Report a case of a nasolabial cyst treated through a transnasal approach with marsupialization of the lesion.

Background: Nasolabial cysts are rare non-odontogenic lesions of the alar nasal region. The classic surgical treatment is the excision of the cyst through a sublabial transoral approach; however, a transnasal endoscopic approach has been increasingly described.

Case description: We report a case of a 72-year-old female patient who presented with a nasal swelling in the left alar region, with associated asymmetry of the nasolabial fold and partial obstruction of the left nasal vestibule. The computed tomography showed an expansile cystic lesion with regular contours, accompanied by bone remodeling without destruction. The patient was submitted to transnasal marsupialization of the lesion, which was performed under local anesthesia. The postoperative period was uneventful, with complete resolution of complaints.

Conclusion and clinical significance: Marsupialization of the nasolabial cyst via a transnasal route is an effective therapeutic approach. The conventional and still most commonly used technique in many centers is the intraoral sublabial excision, but when comparing both techniques, the transnasal marsupialization seems to be less invasive, have a shorter surgical time and overall fewer postoperative complications. Otorhinolaryngologists must be aware of this rare lesion and the possible treatment modalities to best manage their patients.

Keywords: Case report, Nasolabial cyst, Non-odontogenic cyst, Sublabial approach, Transnasal marsupialization.

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BACKGROUND

Nasolabial cyst (NLC) is a rare and benign, non-odontogenic lesion of the alar nasal region. It accounts for about 0.7% of non-odontogenic cysts and usually manifests clinically as a non-painful swelling that obliterates the nasolabial fold, and can also cause nasal obstruction and recurrent infections.¹⁻⁴

The classic surgical treatment is the removal of the cyst through a sublabial transoral approach. For the first time in 1999 and over the following years, the transnasal endoscopic approach with marsupialization of the cyst has been increasingly described.⁵⁻⁸

CASE DESCRIPTION

We present a case of a 72-year-old female patient who came to the emergency department with a painful nasal swelling in the left alar region, with associated asymmetry of the nasolabial fold. The lesion protruded into the nasal cavity, antero-inferiorly to the inferior turbinate, with fluctuation and pain on palpation. The existence of an abscessed collection was assumed, so it was punctured and the purulent content drained. The patient reported similar episodes previously, and underwent a computed tomographic (CT) scan which showed an expansile cystic lesion with regular contours, posterior to the nasal ala and anterior to the maxillary bone, accompanied by bone remodeling without destruction. It caused partial obstruction of the left nasal vestibule (Fig. 1).

The patient was proposed for transnasal marsupialization of the lesion, which was performed under local anesthesia. We started the procedure with topical anesthesia (cotton gauze with lidocaine and phenylephrine), followed by infiltration of 2% lidocaine with adrenaline 1:100000 in the nasal mucosa adjacent to the lesion. The initial incision was performed with an 11 blade along the cyst's bulging roof, with a clear yellowish liquid flowing from the cavity. Then, with a pair of scissors we resected part of the superomedial

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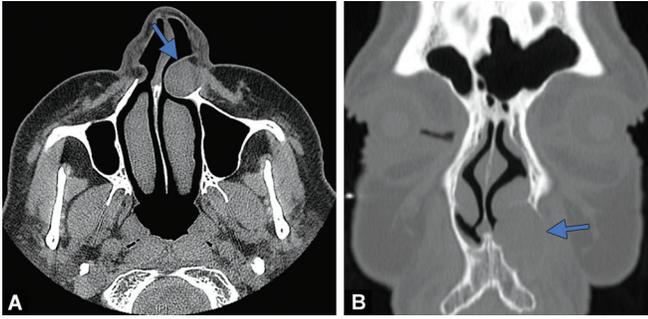
wall (which was sent for histopathology) to obtain approximately a 0.5-cm opening posteriorly to the vestibule and inferiorly to the inferior turbinate. After visualization of the connection established between the cyst and the nasal cavity with an endoscope, a light nasal packing was applied in the intervened region and kept in place for 2 days.

The postoperative period was uneventful, with complete resolution of complaints. Despite having some degree of stenosis caused by the annular scar, the connection established was patent and apparently stable 12 months after surgery (Fig. 2).

DISCUSSION

Nasolabial cysts are rare lesions with a female predominance. The most accepted theory regarding the pathogenesis of these cysts is that they originate from embryological remnants of nasolacrimal duct epithelium. Despite this embryological origin, they usually only manifest in the fourth or fifth decade of life.^{1,4,5}

Most patients have a typical presentation of swelling in the nasolabial fold region, and seek medical assistance due to the aesthetic deformity.⁹ These cysts can also cause recurrent infections, epistaxis, and nasal obstruction, especially in larger lesions.³



Figs 1A and B: Preoperative CT scan showing an expansile cystic lesion (arrows) accompanied by bone remodeling without destruction

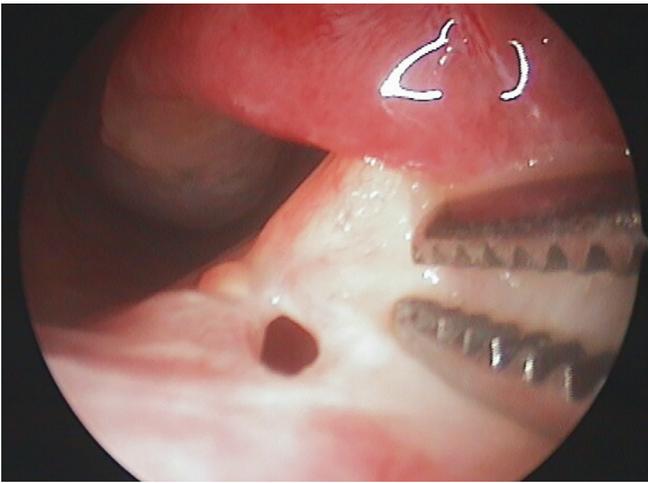


Fig. 2: A 12-month postoperative endoscopic view

Different imaging modalities are available to aid in the diagnosis of NLC and to differentiate from other odontogenic and non-odontogenic lesions. Computed tomographic scan is the most frequently performed imaging study. It gives us an estimate of the extent, the limits, and the origin of the cyst. Plain radiographs are inexpensive but have a limited role in the diagnosis. Magnetic resonance imaging can give a great soft tissue resolution without radiation exposure, but is expensive and not readily available. Ultrasound has also been reported as a cost-effective imaging modality.^{1,3,9}

Regarding surgical treatment, the classic and most commonly used technique is the intraoral sublabial excision. Recurrences with this technique are rare, and postoperative complications not common, but facial and perinasal swelling, gingival and teeth numbness, and nasal floor mucosal tear can occur.⁴

The marsupialization of the NLC via a transnasal route is an effective therapeutic alternative, particularly in larger lesions. It is less invasive, has a shorter surgical time, and overall fewer postoperative complications. This approach also has rare recurrences, but one must keep in mind that a small opening can lead to scarring and stenosis, with cyst reformation.^{1,6-9}

CONCLUSION/CLINICAL SIGNIFICANCE

The conventional and still most commonly used technique in many centers for the treatment of NLC is the intraoral sublabial excision. However, when comparing this technique to the transnasal marsupialization, the later seems to be a cost-effective alternative that should be considered as a first-line treatment, particularly in patients with larger lesions. Otorhinolaryngologists must be aware of this rare lesion and the possible treatment modalities to best manage their patients.

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