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## Bilateral Nasolabial Cyst- A Case Report.

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### ABSTRACT

Nasolabial cyst is rare non-odontogenic cyst which arises as an ectodermal developmental swelling originating in maxillofacial soft tissues. On Computed Tomography nasolabial cyst appears as a well defined soft tissue swelling in the lateral half of the floor of the nasal vestibule at the base of alae of the nose. As Nasolabial cyst is predominantly a soft-tissue mass, MR imaging is most helpful to differentiate it from other lesions, The lesion appears iso to hypointense in T1 and hyperintense in T2 weighted images. This report discusses the Computed Tomography and Magnetic Resonance Imaging features of this rare non-odontogenic soft tissue lesion.

**Keywords:** Magnetic resonance imaging, nasolabial cyst, non odontogenic

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## Case Report

A 38 year old male presented with complaint of swelling in ala of right nasal cavity associated with partial nasal obstruction & occasional headache for 3 months. The lesion was painless. There was no history of epistaxis or nasal discharge, Extraoral examination revealed facial asymmetry with slight elevation of the ala nasi and deformation of the right nasolabial sulcus. Intra oral examination shows a small swelling in the ala of right nasal cavity.

Computed tomography of paranasal sinuses showed a well defined mildly hyperdense lesion measuring ~ 18 x 14 x 11 mm (CT value + 70 HU) anterior to the pre maxilla in right paramedian region with projection into inferior aspect of right nasal cavity. The lesion showed no significant contrast enhancement. The lesion was seen just abutting the right inferior turbinate. Mild scalloping of underlying bone was seen. On ultrasound examination the lesion appeared cystic with a hyper echoic nodule within. Another small non enhancing soft tissue density lesion measuring ~ 9 x 7 mm noted in the left paramedian region. This lesion appeared cystic on ultrasound. MR imaging revealed a well-defined cystic lesion, which appeared homogeneously isointense on T1-weighted and hyperintense on T2-weighted images. The patient underwent cyst enucleation surgery; histopathology confirmed the diagnosis.

## DISCUSSION

Nasolabial cyst is a well-known non-odontogenic cyst that occurs in the alar base and has a predilection for women, especially those older than 40 years [1]. It often appears bilaterally. It is located beneath the ala nasi and anterior nasal fold and appears as a painless, mobile, elastic-soft and fluctuating mass with defined margins and causes the protrusion of the upper lip, an elevated nasal ala and the effacement of the nasolabial fold [2-4]. This lesion is usually noted for several years because of its slow growth but becomes painful swelling when infection occurs. The pathogenesis of this cyst is still controversial. One early theory was that the lesion was a retention cyst arising from an inflamed mucous gland. Recent theory, suggested by Klestadt [4] was that embryogenic nasal epithelium was trapped between the merging maxillary process and the medial and lateral nasal process. His hypothesis was well supported, and NC was categorized as a fissural cyst in the classification of the World Health Organization (WHO) in 1971 [5].

Because the Nasolabial cyst appears as a soft-tissue mass, CT and MR imaging examinations are helpful to confirm its location [6], Some reports presented detailed MR images of this lesion and showed that the appearance on MR imaging is homogeneous hypointensity to intermediate intensity on T1-weighted images and hyperintensity on T2-weighted images [7].

**Figure 1: A well-defined mildly hyperdense lesion noted anterior to the pre maxilla in right paramedian region with projection into inferior aspect of right nasal cavity.**



MRI imaging can differentiate between different types of epithelial cysts [8]. Odontogenic keratocysts give intermediate-high signal intensity in T1 and heterogeneous low-high signal intensity on T2. While in dentigerous cyst, radicular cyst and nasolabial cyst, it gives homogenous intermediate SI in T1 and homogenous high SI in T2 [9-11]. In nasopalatine duct cysts it gives specific homogenous high SI in T1. There was also a report of radiology of 2 cases of nasolabial cysts signifying the importance of MRI over other types of investigations in better diagnosis [12].

**Figure 2: The lesion shows no significant contrast enhancement. The lesion is seen just abutting the right inferior turbinate. Mild scalloping of underlying bone seen.**



**Figure 3: Axial T1WI shows well-defined soft-tissue mass, iso-hypointense lesions anterior to the pre maxilla in the inferior aspect of bilateral nasal cavity**

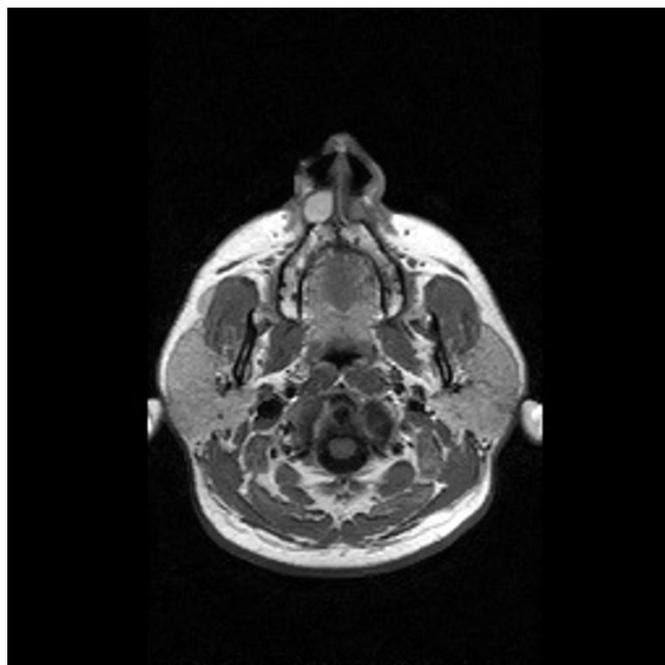


Figure 4: T2 Axial T2WI shows well defined hyperintense lesions anterior to the pre maxilla in the inferior aspect of bilateral nasal cavity

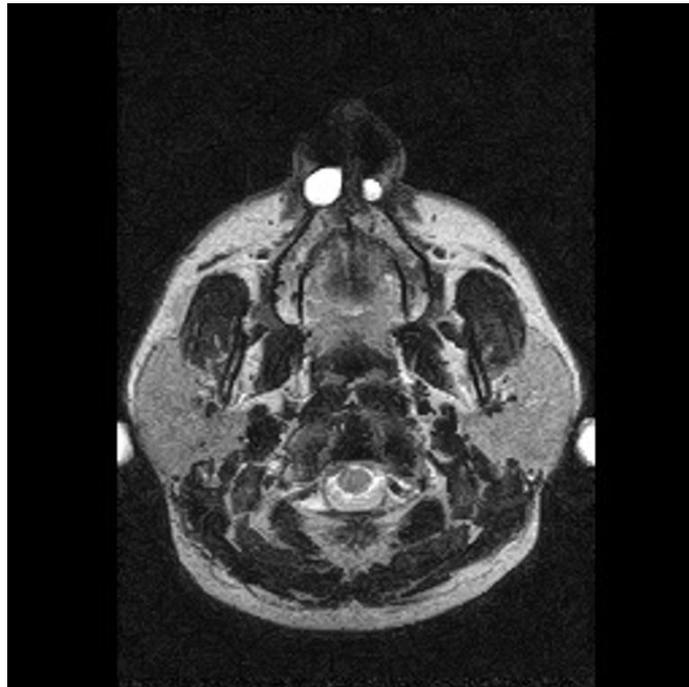
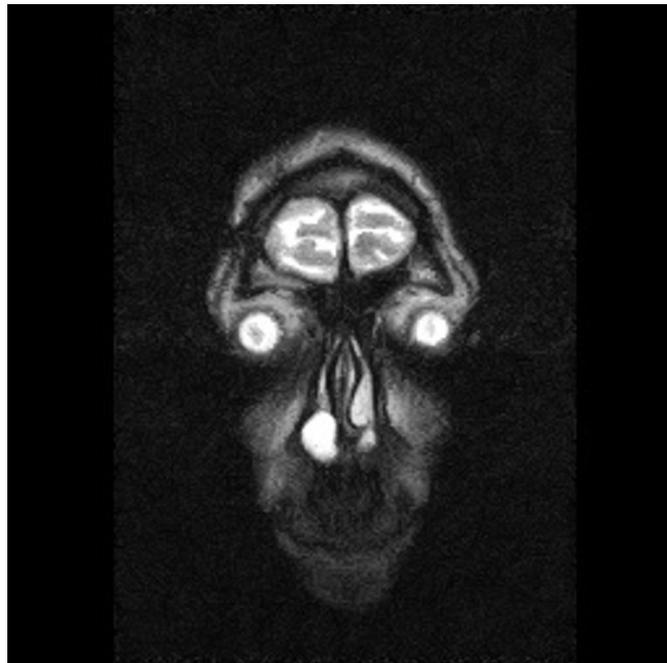


Figure 5: Coronal T2WI shows hyperintense lesion the lesion is seen just abutting the right inferior turbinate



#### CONCLUSION

Nasolabial cyst is an uncommon cyst in the anterior part of the nasal floor. It occurs commonly in young females. Its clinical diagnosis is supported by its typical CT and MRI features. It gives homogenous well defined soft tissue density on CT .On MRI the lesion shows isointense signal on T1 and bright hyperintense in T2 weighted images. MR imaging by virtue of its superior contrast & spatial resolution, is excellent for characterizing the premaxillary region,preoperatively



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