

## NASOPHARYNGEAL LIPOMA: A CASE REPORT

## ENT

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## ABSTRACT

**Background:** Lipomas are common, benign, slow-growing hamartomas that are thinly encapsulated. They appear as soft, multilobular masses of typical adult adipose tissue found in subcutaneous tissue. They are rarely seen in head and neck region. Nasopharyngeal Lipoma can be asymptomatic and can cause nasal obstruction in some patients. Provisional diagnosis can be made by imaging studies, but final diagnosis is made postoperatively by histopathological examination. **Case Report:** A 40-year-old male came to OPD with nasal blockade, mild discomfort on swallowing, right ear blockade, hyponasal voice for past 3 years. On Diagnostic nasal endoscopy, yellowish mass was seen in nasopharynx obstructing right side. Imaging studies revealed solid mass in nasopharynx showing fat density most likely Nasopharyngeal Lipoma. Patient underwent transnasal endoscopic excisional biopsy and mass was sent for histology which confirmed the diagnosis. Intra-operative and post-operative period was uneventful, and patient was discharged on POD5. **Conclusion:** Nasopharyngeal Lipoma, although rarely seen, can be a differential diagnosis for nasal blockade. Diagnosis can be made on imaging studies, but final diagnosis can be made by histology. The best treatment is surgical excision.

## KEYWORDS

Nasopharyngeal Lipoma, Nasal Blockade, Transnasal Endoscopic Excision

## INTRODUCTION

Lipomas are benign, slow growing tumors composed of adipose tissue.<sup>1</sup> They appear as soft, multilobular masses that are thinly encapsulated. Nasopharyngeal manifestation is rare with only a few reports describing in the literature.<sup>1-5</sup> Previous studies have reported a peak incidence in 5<sup>th</sup> and 6<sup>th</sup> decades.<sup>4,5</sup> Lipomatous tumors accounts for 15-20% of the cases located in head and neck region.<sup>6</sup> Most occur in the subcutaneous plane in the posterior triangle of neck.<sup>7,8</sup>

We report a case of 40 years old male with lipoma of nasopharynx having nasal blockade.

## Case Report

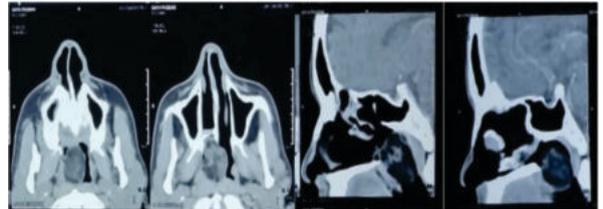
A 40-year-old non-smoker and non-drinker male, belonging to Bihar came to outpatient department with chief complaints of nasal blockade, mild discomfort on swallowing, right ear blockade, hyponasal voice for past 3 years. There was no history of epistaxis, olfactory dysfunction. Patient had no significant medical and surgical history. Patient was not on any kind of medication. At presentation, vitals of the patient were as follows: Pulse Rate: 80 beats/ min, Blood Pressure: 118/72 mmHg, SpO<sub>2</sub>: 99% at Room air, Respiratory Rate: 16/min. Patient was afebrile and had good built. General physical examination was unremarkable.

On Anterior Rhinoscopy, nasal septum was mildly deviated to the left with no mass seen. Otoloscopic examination of right ear revealed serous fluid in right middle ear cavity with intact tympanic membrane. Physical examination of oral cavity, larynx and left ear was normal.

On Diagnostic nasal endoscopy, yellowish, round, non painful mass was seen in nasopharynx obstructing right side. Imaging studies-Contrast enhanced CT scan revealed a well defined predominantly low attenuation right submucosal solid mass lesion (30 x 26 mm) in nasopharynx showing fat density protruding into nasopharynx causing significant airway compromise- most likely Nasopharyngeal Lipoma.

Patient underwent transnasal endoscopic excisional biopsy under general anesthesia. Intraoperatively, pale, homogenous, well encapsulated, smooth surfaced mass was excised in total and was sent for histopathological examination. Intra-operative and post-operative period was uneventful and was patient was discharged on postoperative day 5 in stable condition.

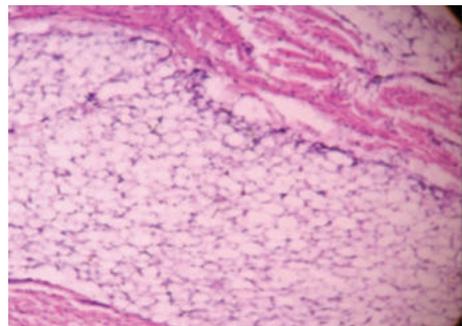
Histopathological examination revealed mature adipocytes in a connective tissue stroma surrounded by a thin fibrous capsule without cytological atypia and mitotic activity. Patient was followed up for 1 year with no breathing difficulty and nasendoscopy showed no signs of tumor recurrence.



**Figure 1:** CECT PNS Axial and Sagittal Section showing well defined right solid mass lesion.



**Figure 2:** Intra-operative picture of nasopharyngeal mass.



**Figure 3:** Histopathological examination of Nasopharyngeal Lipoma

## DISCUSSION

Lipomas are most commonly encountered, benign, slow growing mesenchymal tumors composed of adipose tissue. Since they grow insidiously, they are of little clinical concern and mostly patients present for cosmetic concerns. It can occur anywhere in the body where adipose tissue is present.

Due to paucity of fat in nasopharynx, it is relatively uncommon in nasopharynx. Presence of a fibrous capsule on histopathological examination differentiates it from simple fat aggregations. Kalan A. et al reported a case of lipoma in fossa of Rosenmuller.<sup>9</sup> Liu et al (2011)

first reported a case of lipoma in eustachian tube.<sup>10</sup> Jonathan D. et al (2016) reported a case of lipoma in Eustachian tube.<sup>11</sup>

Peak incidence in most studies was 5<sup>th</sup> and 6<sup>th</sup> decade whereas in our study, the patient was in 4<sup>th</sup> decade. Lipomas are non painful, relatively asymptomatic. It mostly depends on the location of the lipomas. They usually grow to large size before they are discovered. Obstruction of nasopharynx can lead to airway compromise, eustachian tube dysfunction, conductive hearing loss and otitis media with effusion. In our case, patient presented with nasal blockade, mild difficulty in swallowing, right ear blockade and hyponasal voice. Due to relatively large size, patient had presented with all the symptoms caused due to obstruction of nasopharynx. Growth of mass was more towards right side thus having right otitis media with effusion and left ear was normal. It is reported that with the progression of the disease, fat necrosis and prominent hyalinization can be observed.<sup>12</sup>

Diagnostic process starts with clinical examination by anterior rhinoscopy and nasendoscopy. In described patient, yellowish, round encapsulated nasopharyngeal mass with smooth margins was seen on nasendoscopy. CECT was done which revealed well defined right submucosal solid mass lesion in nasopharynx of fat density measuring 30 x 26 mm likely Nasopharyngeal Lipoma. MRI is better than CT scan due to high resolution images of soft tissues. Our patient refused for MRI scan due to financial constraints.

The best treatment is transnasal endoscopic surgical excision which our patient underwent and the mass excised was sent for histopathological examination. Presence of mature adipocytes with thin fibrous capsule on HPE confirmed the diagnosis.

## CONCLUSION

Despite the fact that nasopharyngeal lipoma are quite rare, adult patients presenting with nasal blockade or otitis media with effusion should have this disease as one of the differentials. Nasendoscopy is a must in these patients as it singularly helps in identifying the gross appearance of the mass. Imaging modalities (CT/ MRI) are important in knowing the extension of the disease and important anatomical landmarks. Medical management does not help in relieving the symptoms. So, the only approach is surgical excision of the mass which decreases the symptoms thus improving quality of life.

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