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Nasopharyngeal Lipoma in an Adolescent Girl

Ergenlik Çağındaki Bir Kız Çocuğunda Nazofarengeal Lipom

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ABSTRACT

A benign nasopharyngeal mass typically presents with symptoms that may mimic those of chronic rhinosinusitis, such as nasal obstruction, rhinorrhea, and hyponasal speech. A nasopharyngeal mass that enlarges may extend into the oropharynx, resulting in symptoms, which may be more distressing, including foreign body sensation in the throat and choking sensation. We report a rare presentation of a nasopharyngeal mass that extended into the oropharynx in an adolescent girl, and turned out to be a nasopharyngeal lipoma. Despite a benign condition, the location of the mass, which results in distressing symptoms, requires intervention. We highlight the clinical presentation and management of this uncommon nasopharyngeal mass.

Keywords: Nasopharynx, lipoma, benign mass, nasal mass

ÖZ

Nazofarengeal benign bir kitle genellikle nazal obstrüksiyon, rinore ve hiponazal konuşma gibi kronik rinosinüziti taklit edebilen semptomlarla kendini gösterir. Büyüyen bir nazofarengeal kitle, orofarenkse uzanarak boğazda yabancı cisim hissi ve boğulma hissi gibi daha rahatsız edici semptomlara neden olabilir. Bu yazıda, bir ergen kızda orofarenkse uzanan nadir bir nazofarengeal kitle vakasını sunuyoruz ve bunun nazofarengeal lipom olduğu ortaya çıkmıştır. Her ne kadar benign bir durum olsa da, kitlenin yerleşimi rahatsız edici semptomlara yol açtığından müdahale gerektirmektedir. Bu nadir görülen nazofarengeal kitlenin klinik prezentasyonunu ve yönetimini vurguluyoruz.

Anahtar Sözcükler: Nazofarenks, lipom, benign kitle, nazal kitle

INTRODUCTION

Lipoma, albeit a common entity within the head and neck region, occurs rarely in the nasopharynx. Clinically, lipoma of the nasopharynx mimics other types of benign nasal masses, and imaging is usually required to aid in the diagnosis, although histopathological examination provides an accurate diagnosis. Patients remain asymptomatic throughout their lives owing to the slow-growing nature of the mass, although interestingly, patients may present with obstructive symptoms such as sleep apnoea. Previous studies have reported a peak incidence of nasopharyngeal lipoma in the 5th

and 6th decades of life, while this condition is rarely seen in the first two decades of life (1,2). Herein, we report a rare case of benign lipomatous lesion of the nasopharynx in an adolescent girl.

CASE REPORT

A previously healthy 16-year-old girl presented with a 4-month history of halitosis and globus sensation. She occasionally feels like something is stuck in her throat. However, there are no dysphagia, odynophagia, or choking episodes. No constitutional or obstructive symptoms are present. Additionally, there were no recurrent nasal or throat symptoms.

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^eCopyright 2025 The Author. Published by Galenos Publishing House on behalf of Gazi University Faculty of Medicine. Licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 (CC BY-NC-ND) International License. ^e Telif Hakkı 2025 Yazar. Gazi Üniversitesi Tıp Fakültesi adına Galenos Yayınevi tarafından yayımlanmaktadır. Creative Commons AttrGaviTicari-Turetilemez 4.0 (CC BY-NC-ND) Uluslararası Lisansi ile lisanslanmaktadır. Additionally, no other significant past surgical and family history was obtained. Upon examination, the patient was comfortable. Zero degree rigid nasoendoscopy revealed a pedunculated cystic mass with a stalk arising from the opening of the left eustachian tube, measuring approximately 2 cm x 2 cm. The bilateral osteomeatal complex was clear. Intraoral and otoscopic examinations were unremarkable. Other systemic examinations were normal.

Contrast-enhanced computed tomography revealed a nonenhancing pedunculated tubular lesion with cystic and fatty components, arising from the left nasopharyngeal region, measuring about 1.2 cm x 2.5 cm x 1.7 cm, without evidence of bony erosion and infiltrative features over the surrounding tissues, suggestive of benign fatty tissue. Magnetic resonance imaging (MRI) of the neck showed a high signal intensity T1-weighted lesion arising from the left nasopharyngeal wall, with a solid component peripherally (Figure 1).

Examination under anaesthesia and endoscopic excision of the nasopharynx mass was performed under general anaesthesia. Intraoperatively, the nasopharynx mass was excised using cold instruments, and histopathological examination of the mass revealed a stroma composed of fibrofatty tissue and skin adnexal, seen beneath the squamous epithelium, which was suggestive of a benign lipomatous lesion. Post-operatively, the patient was well with no complaints, and was symptom-free since then. Consent was obtained from the patient and the parent.

DISCUSSION

Lipomas are common benign soft tissue tumours encountered in all parts of the human body. They often occur in adults between 50 and 60 years old. Equal gender predominance was noted; however, some studies report male predominance (1,2). Individuals in their early 20s to 70 are rarely affected (1,2). Lipomas are composed of slow-growing mature adipose tissue and are rarely symptomatic.



Figure 1. MRI shows high signal intensity T1W lesion arising from the left nasopharyngeal wall

MRI: Magnetic resonance imaging, T1W: T1-weighted

Localized effects on the surrounding tissue have been reported, resulting in large lipomatous lesions (1). Lipoma can occur in any part of the body, which contains fatty tissue. Based on previous data, the head and neck involvement of lipoma is nearly 30% and commonly involves the posterior triangle of the neck (1,2). Nasopharynx involvement of lipoma is considered rare due to the paucity of normal fatty tissue in that area (3).

Nasopharyngeal lipoma is characterised by a pedunculated or polypoidal mass (1,4,5), similar to our case. However, its clinical appearance can be mistaken for other common benign nasopharyngeal masses such as adenoid, antrochoanal polyp, inverted papilloma, pleomorphic adenoma, Thornwaldt's cyst, and vascular tumour. Hence, imaging plays a crucial role in guiding the clinician in making a definitive diagnosis and appropriate management of patients. Albeit rare, localised effects of nasopharyngeal lipoma include rhinorrhea, postnasal drip, nasal obstruction, epistaxis, anosmia, foul nasal odour, halitosis, palatal or retropharyngeal mass, foreign body sensation, dysphagia, hearing loss, aural fullness, voice change, cranial nerve involvement and meningitis (1-5). In our case, the lipomatous mass caused foreign body sensation and halitosis. MRI is the gold standard imaging technique given its higher resolution of soft tissue view (6,7). Computed tomography will demonstrate a homogeneous mass with low attenuation ranging from -65 to -120 HU with no evidence of enhancement and infiltrative features (8) as seen in our case. MRI will reveal strong signal intensity on T1 and T2 weighted images without any enhancement. Additionally, MRI can determine the margin of lipoma by delineating a "black rim" image, which distinguishes lipoma from the surrounding adipose tissue (7).

The main treatment for nasopharyngeal lipomas is surgical excision, aiming to bring a curative effect to cure the patient. However, lipomas that are deep-seated or close to vital structures may pose a challenge to surgeons. Interestingly, although not widely practised, some literature recommends postoperative radiotherapy in the case of incomplete resection or recurrence of symptomatic lipoma (1).

CONCLUSION

Nasopharyngeal lipoma, albeit a recherche, ought to be considered a differential diagnosis for a benign nasopharyngeal mass. Imaging, notably MRI, plays an important role in establishing the diagnosis. Complete surgical resection of lipomas is a gold standard treatment in all cases, and post-operative follow-up is important to ensure the absence of symptoms.

Ethics

Informed Consent: Consent was obtained from the patient and the parent.

Footnotes

Authorship Contributions

Concept: N.S.M., J.S., Design: N.S.M., J.S., Supervision: J.S., N.A.G., Resources: N.S.M., J.S., Material: N.S.M., J.S., Data Collection or Processing: N.S.M., J.S., Analysis or Interpretation: N.S.M., J.S., Literature Search: N.S.M., Writing: N.S.M., J.S., Critical Review: J.S., N.A.G. **Conflict of Interest:** No conflict of interest was declared by the authors.

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