

Nasopharyngeal (Tornwaldt's) Cyst: Rare Finding in a Habitual Snorer

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Abstract

A nasopharyngeal (Tornwaldt's) cyst is uncommon. It is often asymptomatic; however it may cause problem if it too big becomes. We present a case of a 24-year-old Malay girl who had been a habitual snorer for years but was unaware of the significance of her problem. Opportunities for an earlier referral and assessment were missed since we were not aware of her history despite previous related but non-specific consultations at our primary healthcare centre. She was referred to us a few years later when her nasopharyngeal cyst became infected. After a course of antibiotics, she proceeded with an endoscopic resection of the nasopharyngeal cyst. A follow-up visit six months later did not reveal a recurrence. This case highlights the importance of a good history for the diagnosis of a nasopharyngeal cyst.

Introduction

Nasopharyngeal (Tornwaldt's) cysts are rare and a result of abnormal embryological development at the posterior wall of nasopharynx. Its reported prevalence varies greatly ranging from 1.4% to 3.3% in autopsy series and from 0.2%-5% in MRI series.¹ Although it is relatively uncommon and majority are asymptomatic, it may cause clinically-significant symptoms. As such, the attending physician must be aware of this diagnosis since nasopharyngeal cysts can be treated.

Case Summary

We present a case of a 24-year-old Malay woman referred to us from a primary healthcare clinic. She had a two-week history of blood-tinged sputum especially in the morning. It was associated with foul breath and her left ear was blocked. A globular mass was noted extending into the oropharynx from above the

soft palate. Apart from being a habitual snorer, she was otherwise asymptomatic and did not experience symptoms of obstructive sleep apnoea such as excessive daytime somnolence or frequent nocturnal awakening. She also did not complain of any nose block, post-nasal drip, epistaxis or haemoptysis. Apart from the ear block, she did not have other ear symptoms. However, she visited the healthcare clinic twice in the past year complaining of throat discomfort which was treated for viral pharyngitis. A detailed sleep history was, not recorded during these consultations.

The patient was healthy looking with normal body mass index. Oral examination revealed a pink cystic inflamed mass extending into the upper part of oropharynx posterior to the soft palate. There was no adenotonsillar hypertrophy or any significant deviation of nasal septum. Nasal endoscopy revealed the origin of the mass from the left posterolateral nasopharyngeal wall medial to the fossa of Rosenmuller. Examination revealed left

middle ear effusion which was confirmed by an impedance test and the pure tone audiogram revealed a mild conductive hearing loss. The patient was diagnosed with having an infected nasopharyngeal cyst and treated with a course of oral amoxycillina/ clavulanic acid for one week to cover for common upper respiratory tract pathogens (eg. streptococcus pneumoniae, haemophilus influenza).

As the mass appeared to originate from the roof of the nasopharynx, a CT scan was done to rule out an intracranial problem such as a meningocele. The CT scan showed no intracranial extension of the soft tissue mass which measured 2.6cm x 1.3cm x 1.0cm extending from the left side of nasopharynx into the oropharynx.



Figure 1.
Endoscopic view of the nasopharyngeal cyst with its stalk (arrow) arising from the roof of the nasopharynx.

The patient underwent an endoscopic resection of the cyst. The histopathological examination of the lesion showed polypoidal tissue lined by stratified squamous the epithelium with no evidence of malignancy. At six-month follow up visit, her habitual snoring and middle ear effusion resolved. She was asymptomatic with no evidence of recurrence.



Figure 2.
CT scan (axial and coronal views) showing the presence of the nasopharyngeal cyst (arrow)

Discussion

A nasopharyngeal (Tornwaldt’s) cyst develops from a congenital remnant of the notochord and pharyngeal ectoderm in the posterior nasopharynx. These residual tissues form a bursa or pouch that can become cystic.^{1,2} Its overall prevalence has not been well established with a peak age of presentation in the second and third decade of life.³ The presentations depends on the size of the cyst and its location

in the nasopharynx. Patients may present with non-specific nose or ear symptoms such as snoring, nasal obstruction, post nasal drip, ear block or a conductive hearing loss and this is due to eustachian tube dysfunction on middle ear effusion. A nasopharyngeal cyst may also become infected leading to symptoms of foul odour, sore throat or headache usually in the occipital region.^{1,3,4,5} As nasopharyngeal cysts are relatively rare and presents with non-specific symptoms, they are often not diagnosed early.

Therefore, awareness of the diagnosis is important as the symptoms could be easily resolved with surgical intervention. Referral to an otorhinolaryngologist for a thorough ENT assessment should be considered especially in patients whose symptoms do not resolve despite optimal medical treatment.

In this case, it has to be noted that previous visits to our primary healthcare clinic may have brought about suspicion of a nasopharyngeal pathology and an earlier referral to the ENT surgeon. Patients, especially young women, often do not volunteer information pertaining to the history of habitual snoring. It is however, important as snorers are known to experience frequent sore throat especially in the morning due to nocturnal mouth breathing which results in drying of the mucosa of the

posterior pharyngeal wall. This highlights the importance of a detailed history especially when early lesions may still be confined to the nasopharynx. Although habitual snoring could be attributed to the nasopharyngeal cyst in this case, it is a very rare cause. Other more common conditions should first be sought in patients with snoring such as obesity, adenotonsillar hypertrophy, deviated nasal septum, nasal polyposis and micrognathia.

The diagnosis of a nasopharyngeal cyst is mainly based on the presence of a pendulous polyp or a generalised bursa like swelling on nasal endoscopy. Depending on its appearance, surgical intervention may involve either a simple excision at the stalk of the pendulous polyp or a marsupialisation of a cyst appearing as a bursa. CT/MRI scan should be carried out if there is a suspicion of an intracranial origin.

Conclusion

Although nasopharyngeal cysts are uncommon and majority are asymptomatic, they may cause troublesome symptoms if they become large or infected. Clinical suspicion must be exercised for its diagnosis which can be easily determined with a simple nasal endoscope and effectively treated by surgical removal of the cyst.

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