

Choanal Polyp Originating From The Middle Turbinate: A Case Report

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ABSTRACT

Choanal polyps can be defined as benign, solitary, inflammatory soft tissue masses, that extends towards the nasal cavity and the nasopharynx. Unusual origins such as the sphenoid sinus, ethmoid sinus, nasal septum, hard and soft palate have been reported in the literature. This report describes a polyp that arose from the middle turbinate and extended through the choana into the nasopharynx and removed by an endoscopic surgery technique. The computed tomographic findings are described and the literature is reviewed.

Keywords: choanal polyp; nasal obstruction; middle turbinate

ORTA KONKA KAYNAKLI KOANAL POLİP:OLGU SUNUMU

ÖZET

Koanal polipler, burun boşluğu ve nazofarenks doğru uzanan benign, soliter, inflamatuvar yumuşak doku kitleleri, olarak tanımlanabilir. Literatürde ender olarak sfenoid sinüs, etmoid sinüs, nazal septum, sert ve yumuşak damaktan orijin alabilir. Bu makalede, orta konkadan kaynaklanıp koana ve nazofarinkse uzanım göstermiş olan olgu endoskopik olarak tedavi edilmiştir. Tomografi bulguları literatür eşliğinde sunulmuştur.

Anahtar sözcükler: koanal polyp; nazal obstrüksiyon; orta konka

Introduction

Choanal polyp (CP) can be defined as benign, solitary, inflammatory soft tissue masses, that extend towards the nasal cavity and the nasopharynx. Some 4–6% of all nasal polyps are found to be CP (1). CPs usually originate from the maxillary sinus, unusual origins, such as the middle turbinate, the ethmoid sinus, the nasal septum, the inferior concha, the sphenoid sinus, hard and soft palate, have been reported in the literature (1-3). All CP forms present in a similar manner and share common clinical features. A CP originating from the middle turbinate is an extremely rare entity. A comprehensive literature review revealed only two cases of CP arising from the middle turbinate (2,3).

Herein, we present a rare case of CP, which originated from the inferior side of the middle turbinate, and discuss the radiological and surgical findings.

Case report

A 58-year-old woman was admitted to the our Otolaryngology clinic in November 2010. She complained of left nasal obstruction, hyposmia, left maxillary pain and snoring for 3 years. She had no history of allergy, and her medical history was unremarkable. Anterior rhinoscopy revealed a single polypoid mass on the left side. Nasal endoscopic examination revealed a CP, originating from the inferior side of the left middle turbinate. The polyp began at the level of the antero-inferior of the middle turbinate and extended to the choana. The nasal septum was deviated to the right with spurring. The aeration of the paranasal sinuses were normal (Figure 1, 2).

Endoscopic endonasal sinus surgery was performed under local anaesthesia. At the operation, removal of the CP and partial resection of the head of middle turbinate were



Figure 1. CT image shows, a low density, soft tissue mass originating from the inferior side of the left middle turbinate, and a septal deviation to the right

performed. Septoplasty was undertaken as well, followed by nasal packing with Merocel. No complication occurred, and the symptoms resolved after the operation. The histological diagnosis of the mass was inflammatory polyp. Ten months follow-up with nasal endoscopic examination revealed no recurrence or complications.

Discussion

Nasal polyps are polypoidal masses arising mainly from the mucous membranes of the nose and paranasal sinuses (1). They are non-cancerous growths, freely movable and nontender. According to the National Health Service in United Kingdom, nasal polyps affect between 1 and 20 people out of every 1,000. They are about four times as common in males as females (5). The pathogenesis of nasal polyps is unknown. Nasal polyps are most commonly thought to be caused by allergy and rarely by cystic fibrosis although a significant number are associated with non-allergic adult asthma or no respiratory or allergic trigger that can be demonstrated (4). Stammberger classified the nasal polyps into 5 groups based on the endoscopic view, the clinical response to therapy, and the underlying diseases: antrochoanal polyp; choanal/isolated large polyp; polyps associated with chronic rhinosinusitis, non-eosinophil dominated; polyps associated with chronic rhinosinusitis, eosinophil dominated; and polyps associated with specific diseases (6).

CP commonly originate from the maxillary sinus. However, in rare cases they can originate from the ethmoid sinus, sphenoid sinus, inferior nasal concha and middle turbinate. There may be vascular changes in choanal polyps



Figure 2. The soft tissue mass is demonstrated to extend towards the choana. Note that the aeration of the paranasal sinuses was normal.

and it may be difficult to differentiate them from vascular neoplasms (2,3). In cases of an unusual origin of a CP, an inverted papilloma must be considered in the differential diagnosis. Furthermore, a CP can occasionally be associated with nasal polyposis, thus it must be distinguished from generalized nasal polyps that extend into the choana and the nasopharynx (7).

Differential diagnosis of this unilateral nasal mass should consider other entities such as mucocele or mucopyocele, retention cyst, adenoid hypertrophy, turbinate hypertrophy, Tornwaldt's cyst, angiofibroma, olfactory neuroblastoma, haemangioma, lymphoma, Wegener's granulomatosis, rhabdomyosarcoma, or inverted papilloma (8).

CP present a fairly uniform clinical picture, and unilateral nasal obstruction is the predominant symptom. However, anosmia, nasal discharge, sinusitis, snoring, headache, obstructive sleep apnea syndrome, and epistaxis can also be seen (1). The clinical symptoms, nasal and postnasal endoscopic examinations and imaging modalities are important for diagnosis. Computed tomography is very helpful to make the diagnosis and to detect the origin and the extent of the polyp. Computed tomography typically demonstrates a soft tissue polypoid mass filling the maxillary sinus, the infundibular region is usually widened, and the antral mass extrudes into the middle meatus. As the polyp grows, its extension into the nasopharynx is demonstrated (4).

Many of the nasal disorders cause similar symptoms such as nasal obstruction, hyposmia, nasal discharge, snoring and mouth breathing, nasal endoscopic examination is crucial for accurate diagnosis. Endoscopic sinus surgery

is the treatment of choice and renders a very good prognosis and low recurrence rate. Careful endoscopic dissection of the polyp and excision of all diseased mucosa is advised to prevent recurrence (5).

The middle turbinate should be considered as a possible origin of a choanal polyp. CP arising from the middle turbinate should be kept in mind in the differential diagnosis of unilateral nasal polypoid masses in all patients.

References

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