



A Case of Choanal Polyp Originating from the Superior Nasal Concha

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Abstract

A 55-year-old male patient, who had had complaints of nasal obstruction for a long time, was admitted to the ear-nose-throat (ENT) clinic because of increased nasal obstruction over the previous four months. Based on endoscopic examination, computed tomography (CT) and magnetic resonance imaging (MRI), the patient was diagnosed as having a choanal polyp originating from the right superior concha. The mass was resected using the endoscopic technique. The histopathology results revealed an inflammatory polyp. We decided to present this case because the literature includes no previous reports of cases of choanal polyps originating from the superior concha.

Key Words: Superior concha, choanal polyp, nasal obstruction

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Introduction

Choanal polyps (CP) are benign solitary masses that originate from the nasal mucosa, the maxillary sinus, the sphenoid sinus and the ethmoid sinus mucosa and extend from the choana to the nasopharynx [1]. The most common form, which occurs because of polyps originating from the maxillary sinus, is also called an antrochoanal polyp. Ethmoidochoanal and sphenchoanal polyps are other rare forms that have been named according to the sinuses from which they originate [2]. Although CP cases that originate from other paranasal sinuses and from different parts of the nasal cavity mucosa have been reported in literature, there have, to date, been no reports of cases originating from the superior nasal concha. Therefore, we have presented a CP case that originated from the superior nasal concha and was resected using the endoscopic technique.

Case report

A 55-year-old male patient was admitted to the ENT clinic because he had had nasal obstruction that had lasted for a long time and had increased over the previous four months. Sleeping with his mouth open and snoring added to his difficulties. He had no allergic rhinitis or systemic diseases. Anterior rhinoscopic examination revealed that his septum was deviated to the right. Endoscopic examination detected a pale gray and soft polypoid mass that originated from the posterior part of the right superior concha, filled the upper meatus and extended to the choana from the posterior. The left nasal passage was normal. CT (Figure 1A, 1B) and MRI examinations (Figure 2) found a soft tissue density originating from the posterior part of the right superior concha and filling the sphenoethmoid recessus, completely obliterating the superior part of the choana in the posterior. In addition, a retention cyst was observed in the right maxillary sinus, there was bilateral inferior concha hypertrophy and the septum was deviated to the right. Using endoscopy with septoplasty, the posterior part of the right superior concha was partially resected, along with the polyp. The histopathology examination revealed an inflammatory polyp. No further nasal obstruction or recurrence of the patient's complaints occurred through out the six-month follow-up period.

Discussion

Antrochoanal polyps that originate from the maxillary sinus cause 4-6% of all cases of nasal polyps and are the most common type of choanal polyp [2]. Although it is rare to find CPs originating from the sphenoid, ethmoid and frontal sinuses, or the concha nasalis media, the inferior nasal concha, the nasal septum, the cribriform plate and the soft and hard palates, these have also been reported [2,3,4]. Nasal obstruction is the most common symptom of choanal polyps, with headache, mouth breathing and nasal discharge being among the symptoms as well. Although choanal polyps show no major differences from other types in terms of the clinical symptoms, they differ with respect to radiologic findings and treatment principles.

There are various opinions about how choanal polyps develop. Mills proposes that they develop as a result of the obstruction and dilatation of the mucous glands in the course of sinusitis [5]. Berg et al. suggest that intramural cysts enlarge and extend into the nasal cavity and that polyp formation develops after that [6]. Although local inflammation in the sinus is considered to contribute to the development of choanal polyps, some authors suggest that allergy also plays a role in their etiopathogenesis [7].

Diagnosis is made based on anamnesis, physical examination and radiologic findings. Our patient had had complaints of nasal obstruction that had gradually increased over the previous four months. Endoscopic examination found a choanal polyp with a pedicle that originated from the superior concha and partially obstructed the choana. Although paranasal CT is an ideal diagnostic tool for choanal polyps, Weissman et al. have recommended both CT and MRI for a differential diagnosis of sphenochoanal polyps [8]. CT and MRI images obtained for this patient revealed that the polyp had, indeed, originated from the posterior part of the superior concha.

Surgical excision using the endoscopic technique has been reported to be sufficient for treating choanal polyps [1,2,3,4,7]. In this case, both septoplasty and partial resection of the posterior part of the superior concha with the polyp were performed under general anesthesia. No complications were observed. The patient did not have any complaints during the six months of follow up and no recurrence occurred.

In conclusion, CPs must be considered to be able to originate from unusual locations and preoperative detection of their origins is of considerable importance for surgical plans and for the prevention of recurrences.

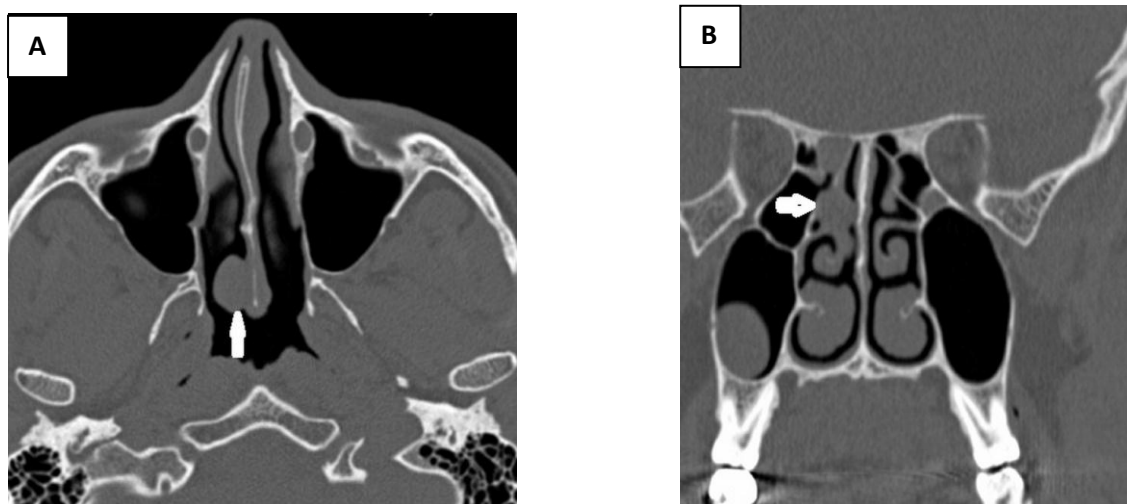


Figure 1A: Axial CT image of the paranasal sinuses

Figure 1B: Coronal CT image of the paranasal sinuses

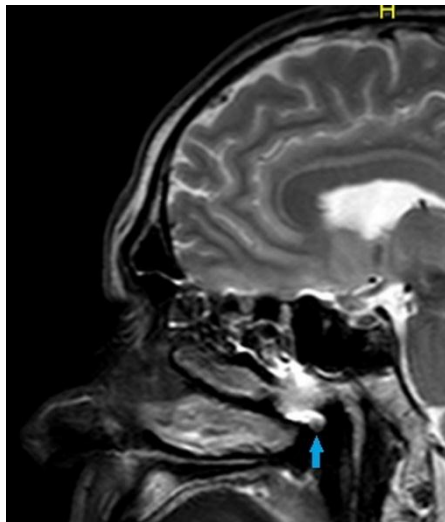


Figure 2: Sagittal image of the brain and paranasal sinuses

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