

CASE REPORT

Choanal polyp originated from the inferior turbinate presenting as nasal polyposis

Alt konkadan kaynaklanan nazal polipozisi taklit eden koanal polip

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Although choanal polyps frequently arise from the maxillary sinus, a choanal polyp originating from the inferior turbinate is a rare entity. A 14-year-old girl who had a history of bilateral nasal obstruction with snoring, mouth breathing and nasal discharge for 10 years, was presented. In endoscopic examination, a polypoid mass completely obliterated the right nasal cavity. Left choana was also totally occluded by the polypoid mass. Endoscopic polypectomy was performed and it was observed that the polyp was originated from right inferior turbinate. Choanal polyps arising from the inferior turbinate should be kept in mind in the differential diagnosis of the unilateral nasal polypoid masses.

Key Words: Choanal polyp; nasal polyp; inferior turbinate.

Koanal polipler sıklıkla maksiller sinus orijinli olmasına karşın, nadiren alt konkadan da kaynaklanabilir. Bu yazıda, 10 yıldır horlama, ağız solunumu, burun akıntısı ve iki taraflı burun tıkanıklığı yakınması olan 14 yaşında bayan hasta sunuldu. Endoskopik muayenesinde sağ burun boşluğunu polipoid bir kitle tamamen kapatmıştı. Polipoid kitle sol koanayı da tamamen kapatıyordu. Endoskopik polipektomiyle polip dokusu çıkarıldı ve polipoid kitlenin sağ alt konkadan kaynaklandığı görüldü. Tek taraflı nazal polipoid kitleli olgularda alt konkadan köken alan koanal polip de ayırıcı tanıda dikkate alınmalıdır.

Anahtar Sözcükler: Koanal polip; nazal polip; alt konkadan.

The first description of choanal polyps (CPs) was reported by Killian in 1906. Later, it was claimed that CPs originated from the maxillary sinus, just inside of the ostium (1909). In some patients, CPs were found to be attached to the lateral aspect of the maxillary sinus with a fibrous or polypoid pedicle (1956).^[1] Berg et al.^[1] claimed that choanal polyp (CP) represents the intranasal portion of an expanding intramural cyst.

Four-6% of all nasal polyps is found to be antrochoanal polyps.^[2] CPs may originate from maxillary,

ethmoidal or sphenoidal sinuses. It rarely originated from middle turbinate.^[3,4] Three types of CPs can be distinguished: antrochoanal, sphenochanal, and ethmochoanal.^[3,5,6] Thorough literature review revealed a case of CP arises from inferior turbinate in which no adequate data has been achieved about the time of onset of the complaints and the dimensions of the polyp.^[7]

In this case report, we present a case of CP originated from inferior turbinate who underwent endoscopic polypectomy with the diagnosis of uni-

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lateral nasal polyposis extending into naso-oropharynx.

CASE REPORT

A 14-year-old female patient had a history of bilateral nasal obstruction with snoring, mouth breathing and nasal discharge, for 10 years. Medical history was unremarkable.

Both anterior rhinoscopy and endoscopic nasal examination revealed a mucopurulent discharge in both nasal cavities with an oedematous nasal mucosa and a polypoid mass completely obliterating right nasal cavity. Left choana was also totally occluded by the polypoid mass. Nasopharynx could not be assessed by posterior endoscopic examination since polypoid mass completely obliterated the naso-oropharynx. The origin of polyps could not be determined in endoscopic examination. Prick test administered for pollen allergy and sweat test were negative. The remaining of the otorhinolaryngologic examination did not reveal any abnormalities. Computed tomography of the nose and paranasal sinuses confirmed the presence of polyp in the right nasal cavity, right maxillary and ethmoid sinuses, nasopharynx and oropharynx (Fig. 1a, b). The other paranasal sinuses and left nasal cavity were clear.

Endoscopic polypectomy was performed under general anesthesia. Polyp tissue in the right nasal cavity was grasped by forceps and pulled in a posi-

tion close to lateral wall; polyp was moved into the nasopharynx and removed transorally. It was observed that the polyp was originated from right inferior turbinate with the size of 6x6.5x3 cm (Fig. 2, 3). After uncinectomy had been performed, it was noted that right maxillary ostium was obstructed, so antrostomy was performed. Mucopurulent secretion was observed and removed from antrum. The histopathological analysis revealed polypoid tissue. Coronal CT view of the nasal cavity, nasopharynx and sinuses revealed normal findings after one-month follow-up (Fig. 4a, b).

DISCUSSION

To our knowledge, no case has been quoted as preoperatively made the diagnosis of nasal polyposis but diagnosed as CP, intraoperatively, though CPs have been known for more than two centuries.

Generally, CP may originate from maxillary, ethmoidal or sphenoidal sinuses. In rare cases, it may originate from middle turbinate.^[3] Only a case of CP originated from inferior turbinate was described by Gordts and Clement.^[7]

Nasal obstruction is the major symptom in cases with CP and is usually unilateral. Nasal blockage may be bilateral when very large as occurred in our case.

Even CT and MRI as well as endoscopic examination do not always allow one to determine the

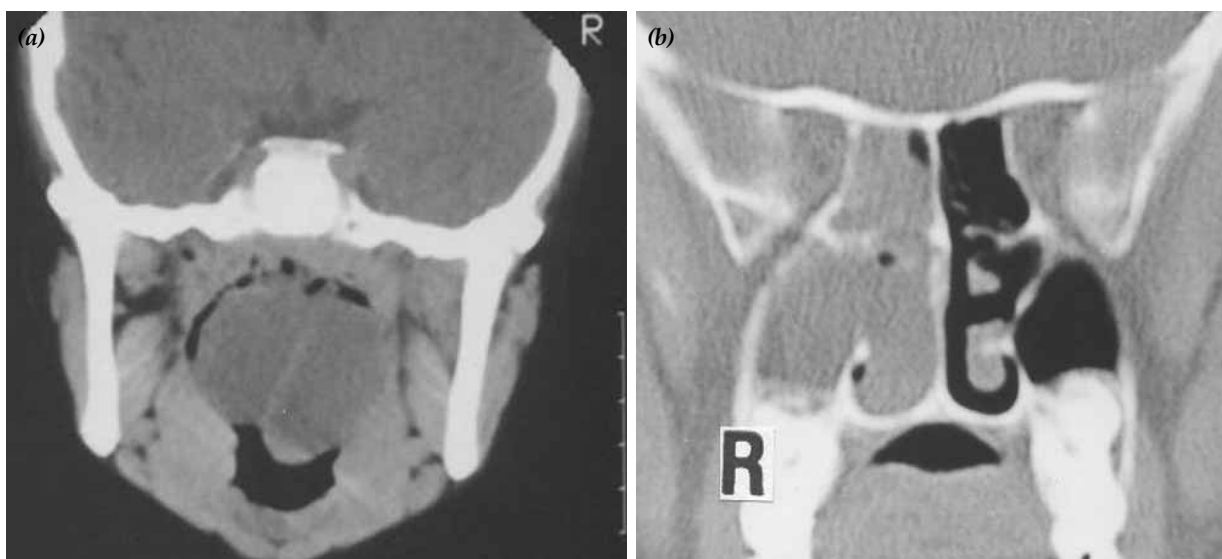


Fig. 1 - (a) Coronal CT view of the demonstrating soft tissue opacity in the nasopharynx. (b) Coronal CT view of the nasal cavity and paranasal sinuses.



Fig. 2 - During endoscopic polypectomy, view of choanal polyp connection to right inferior turbinate.

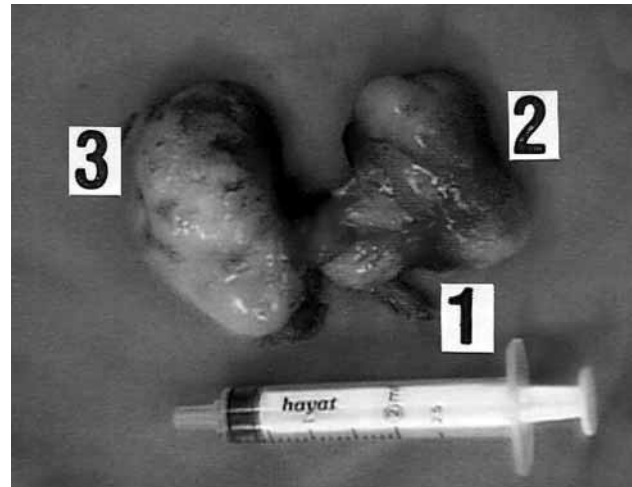


Fig. 3 - Macroscopic appearance of choanal polyp with connection to right inferior turbinate (1), intranasal portion (2) and intranasopharynx portion (3).

exact location of the site of the polyps' attachment in cases with polypoid mass obliterating the nasal cavity completely. In these patients, endoscopic sinus surgery is both the diagnostic as well as the therapeutic procedure.^[3] In our case, origin of the polyp was not determined preoperatively despite CT and endoscopic examination. The reason why we did not consider it as a CP, was the presence of polyps on the right nasal cavity and maxillary sinus. During the operation, the intranasal portion of the polyp removed and the pedicle of the polyp was seen which was originated from the right inferior turbinate.

Traditional polypectomy alone will almost always result in recurrence in the management CP.

Endoscopic sinus surgery is an effective treatment of CP. It offers an excellent approach to the location of origin. Nevertheless, the basic concept of endoscopic sinus surgery -to establish sufficient sinus ventilation and drainage, and to leave the diseased sinus mucosa alone for further healing-must not be applied to CP surgery. All diseased mucosa from the affected sinus or nasal cavity should be removed in patient with CP. In the antrochoanal polyps, does the endonasal technique fail; an additional transcanine approach should be used.^[3,5,8]

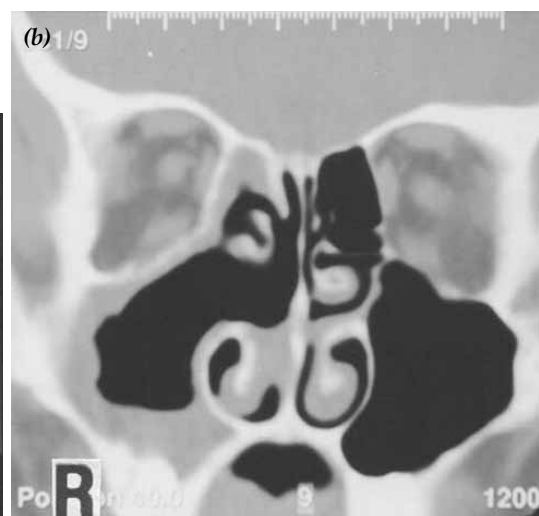


Fig. 4 - (a) Coronal CT view of the nasopharynx after one month follow-up. (b) Coronal CT view of the nasal cavity and paranasal sinuses after one month follow-up.

Endoscopic examination is of critical importance in the children with bilateral nasal obstruction. In endoscopic examination, CP should be kept in mind in cases with unilateral nasal polyposis. CP should be distinguished from the masses like adenoid vegetation and angiofibroma in children. The origin of the CPs is relatively peculiar. It should be considered that CP might arise from inferior turbinate when depicting CP. CP arises not only from sinuses but also arises from inferior turbinate, and it may look like to nasal polyposis.

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