

Bilateral antrochoanal polyps

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Abstract

An extremely rare case of bilateral antrochoanal polyp in an otherwise fit 12-year-old girl is reported. The antrochoanal polyps were removed by bilateral Caldwell–Luc operation. Histopathological examination showed them to be of benign inflammatory nature.

Key words: Nasal Polyps; Child; Paranasal Sinuses Diseases, Surgery

Introduction

Antrochoanal polyps (ACPs) are usually unilateral and occur more commonly in children and in adolescents. They represent four to six per cent of all nasal polyps and are more common in males than females. A case of bilateral ACP, found in a 12-year-old girl, is reported.

Case report

A 12-year-old girl presented to the ENT Outpatients Department complaining of gradually increasing nasal obstruction for two months and the sensation of a lump in the throat for one month. The patient was initially treated by her local general practitioner without any improvement of symptoms and the case was referred to hospital.

On clinical examination, there was complete bilateral nasal obstruction with profuse mucopurulent rhinorrhoea. The polyp on the left side was visible on anterior rhinoscopy. A single polyp was seen hanging in the oropharynx (Figure 1). On posterior rhinoscopy, a polypoidal mass was seen peeping through the left choana, while a larger polyp came out through the right choana to hang in the oropharynx. There was no history of hypersensitivity to any drugs and asthma.

Computed tomography of the paranasal sinuses on axial cuts showed evidence of mixed soft-tissue density (ranging from +37 to +70 HU) masses occupying both antra and also extending to the nasopharyngeal region through the choana (Figure 2). The coronal cut showed extension of soft-tissue density antral masses to the nasal cavities through both the osteomeatal complexes, which were slightly widened (Figure 3).

The polyps were removed by Caldwell–Luc operation on both sides at the same sitting. Both the maxillary sinuses were full of polypoidal tissue. Denudation of the sinus walls was achieved by meticulous removal of the entire lining mucosa. The polyps were sent for histopathological examination after removal. As both the maxillary sinus ostia were widely patent, inferior meatal antrostomy was not carried out.

Histopathological examination of the polyps showed them to be of benign inflammatory nature, lined by respiratory epithelium covering a loose textured congested and myxoid stroma infiltrated by inflammatory cells.

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Accepted for publication: 16 October 2000.

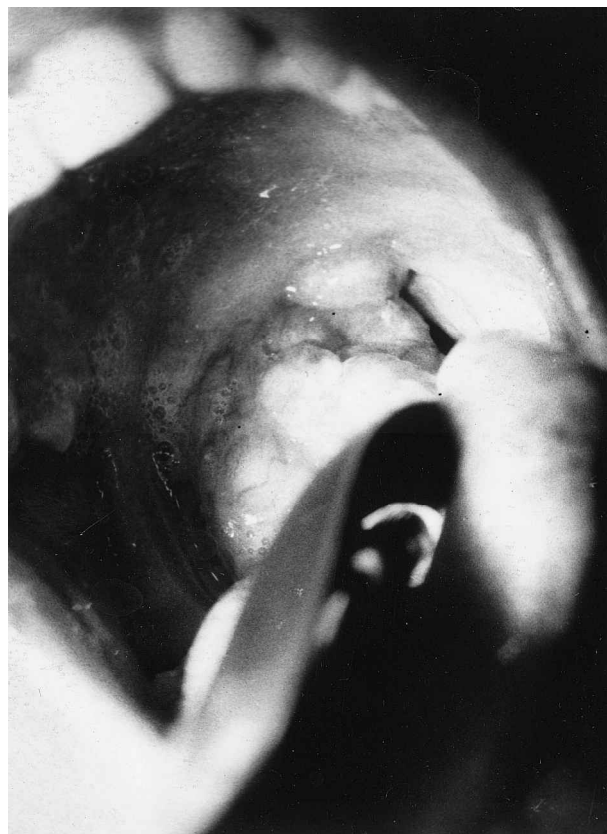


FIG. 1

A large polypoidal mass hanging in the oropharynx.

The post-operative period was uneventful and there was no evidence of recurrence in the six month follow-up period.

Discussion

Antrochoanal polyps (Killian's polyps) are rare. They account for four to six per cent of all nasal polyps and

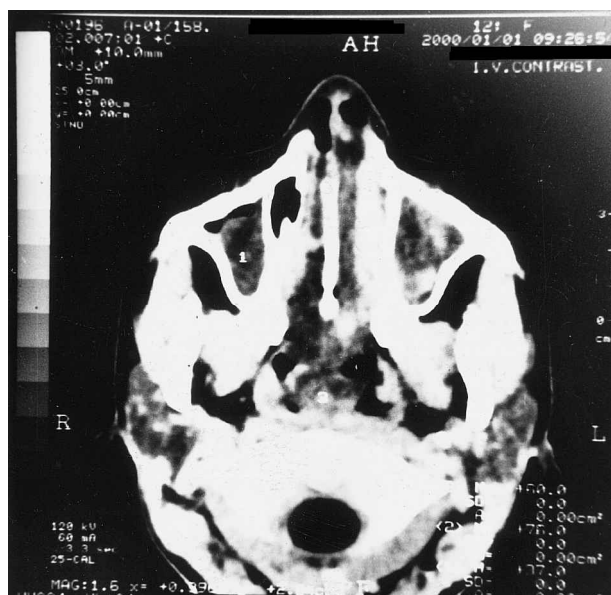


FIG. 2

The axial CT scan showing bilateral polyps extending to the nasopharynx.

represent about 28 per cent of the nasal polyps seen in children. Onset is usually before 40 years and the polyps are more common in males.

Bilateral ACPs are extremely rare. Our search of the literature revealed only a single reported case of bilateral ACP, also found in a 12-year-old girl who was otherwise healthy with no history of allergy or asthma.² Studies to define the site of origin showed that the ACPs arise more commonly from the floor and lateral wall of the maxillary antrum, although their site of origin cannot be determined frequently.³

Chronic sinusitis, allergy, and lower respiratory tract disease have all been implicated in the aetiology of ACP, but nothing has been proved conclusively. The maxillary sinus ostia in the cases of ACP are always found to be large. It is unlikely to be due to expansion by the polyp, as large polyps neither cause expansion of the choana nor do they erode or displace the middle turbinate medially. Proetz suggested that the wide ostia may be a result of faulty development and may itself be the cause of ACP.

Most surgeons are conservative in their management of ACP in children under eight years of age. The possibility of damage to the secondary dentition has prompted surgeons to do simple intranasal polytomy but recurrence is almost inevitable. Removal of ACP in adults by functional endoscopic sinus surgery (FESS) has emerged as a safe and effective procedure in recent years.⁵ Myatt and Cabrera² removed bilateral ACP in a child by FESS without any complication or recurrence.

Caldwell–Luc operation is the time tested method of management of ACP with the distinct advantage of minimal recurrence. Schramm and Efron⁶ and Chen *et al.*¹ have recommended Caldwell–Luc operation as the treatment of choice in childhood ACP. Proponents for Caldwell–Luc operation to manage childhood ACP are of the opinion that children as young as six years of age can be operated upon safely as the ACP occur only after the maxillary antrum has developed and the anterior dentition has erupted.



FIG. 3

The coronal CT scan shows the polyps arising in the maxillary antra prolapsing into the nasal cavity through the widened middle meati.

The patient reported here underwent Caldwell–Luc operation on both sides simultaneously without any complication or recurrence during the six month follow-up period.

References

- 1 Chen JM, Schloss MD, Azouz ME. Antrochoanal polyps: a 10-year retrospective study in the paediatric population with a review of literature. *J Otolaryngol* 1989;**18**:168–72
- 2 Myatt HM, Cabrera M. Bilateral antrochoanal polyps in a child: a case report. *J Laryngol Otol* 1996;**110**:272–4
- 3 Drake-Lee AB. Nasal polyps. In: Evans John NG, ed. *Scott Brown's Otolaryngology*, 5th edn, vol. 4. London: Butterworths, 1987:152
- 4 Cook PR, Davis WE, McDonald R, McKinsey JP. Antrochoanal polyposis: a review of 33 cases. *ENT J* 1993;**72**:401–2, 404–10
- 5 Pinilla M, Gonzales F, Garcia-Berrocal JR, Vergara JR. Endoscopic approach of antrochoanal polyps. *Acta Otorrinolaringol esp* 1994;**45**:345–7 (quoted by Myatt and Cabrera²)
- 6 Schramm VL, Efron MZ. Nasal polyps in children. *Laryngoscope* 1980;**90**:1488–95

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Dr S. Basu takes responsibility for the integrity of the content of the paper.

Competing interests: None declared