

Sphenchoanal polyp: diagnose and treatment*

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SUMMARY

Choanal polyps (CP) are benign mucous tumours that usually originate in the mucosa of the maxillary sinus, and hence are termed antrochoanal polyps. CP rarely originates in the mucosa of other nasal structures and paranasal sinuses. The purpose of this brief clinical communication is to present six cases of CP originating in the sphenoidal sinus and termed sphenchoanal polyps (SCP).

Key words: choanal polyp, sphenchoanal polyp, benign tumour, sphenoidal sinus, functional endoscopic sinus surgery

INTRODUCTION

Choanal polyps (CP) are benign, relatively uncommon mucous tumours that by definition protrude through the choana and represent 3-6% of nasal polyps (Eloy et al., 1996). Classification is based on the origin of their pedicle: antrochoanal (originating in the maxillary sinus), ethmochoanal and sphenchoanal (SCP). Isolated polyps, originating from the anterior wall of the sphenoidal sinus or from its interior and extending as CP into the nasopharynx, are extremely rare (Stammberger, 1991).

The authors present six cases of sphenchoanal polyps seen in the Otolaryngology Department of the University of São Paulo Medical School, from May 1996 to July 2000.

PRESENTATION OF CLINICAL CASES

Four patients were female and two male, with ages ranging from 8 to 43 years. In all cases the diagnosis was made based on clinical features, nasal endoscopy and computed tomography of the paranasal sinuses. All six patients were submitted to Endoscopic Sinus Surgery (ESS) and have been followed-up with no signs of recurrence until the present moment.

DISCUSSION

The SCP arises from the oedematous, hyperplastic submucosa lining the wall of the sphenoidal sinus, passes through the sinus ostium and protrudes into the choana and sometimes into the nasopharynx (Weissman et al., 1991). Various theories have been proposed for its pathogenesis that, however, remains unknown. The most acceptable theory is that it originates from a submucosal cyst secondary to thrombosis of lymphatic vessels caused by a post-infection sinus inflammation (Piquet et al., 1992; Crampet et al., 1995; Eloy et al., 1996). Its association with immunological deficiency and allergy is controversial. Eloy et al. (1996) feel that the relationship with aller-

gy is irregular. Ileri et al. (1998) believe that the polyps grow under the influence of inflammatory and allergic conditions but Crampete et al. (1995) do not agree. In our report, no patient had had allergy tests.

SCP is seen mostly in adolescents (over 10 years of age) and young adults without any predilection for sex. In the cases reported ages ranged from 8 to 43 (mean 30.5 years) and four of our cases were females. Unilateral nasal obstruction was the chief symptom in our series, followed by headache and unilateral purulent discharge.

SCP is diagnosed by clinical features, nasal endoscopy and imaging techniques, so that the development of endoscopy and computed tomography (CT) have resulted in increased diagnosis of new cases (Sethi, 1999). Nonetheless, in some cases it is impossible to specify the exact origin of the polyp and in these cases, Endoscopic Sinus Surgery (ESS) is both a diagnostic and therapeutic procedure, as it permits perfect visualization of the pedicle's insertion (Lopatin et al., 1997).

During the endoscopy, the SCP usually presents between the nasal septum and the middle turbinate, as opposed to the antrochoanal polyp (ACP) which is visible within the middle meatus, passing between the middle turbinate and the nasal cavity's lateral wall (Weissman et al., 1991; Crampete et al., 1995). The polyp is observed in the choana and sometimes its insertion is visible in the sphenoethmoidal recess (Crampete et al., 1995). The CT scan of the paranasal sinus displays choanal polyps as hypo attenuated images producing the involved sinus opacity (Weissman et al., 1991). They occupy the posterior

Footnote: Presented at The Nose 2000...and Beyond. September 20-23, 2000, Washington D.C., USA

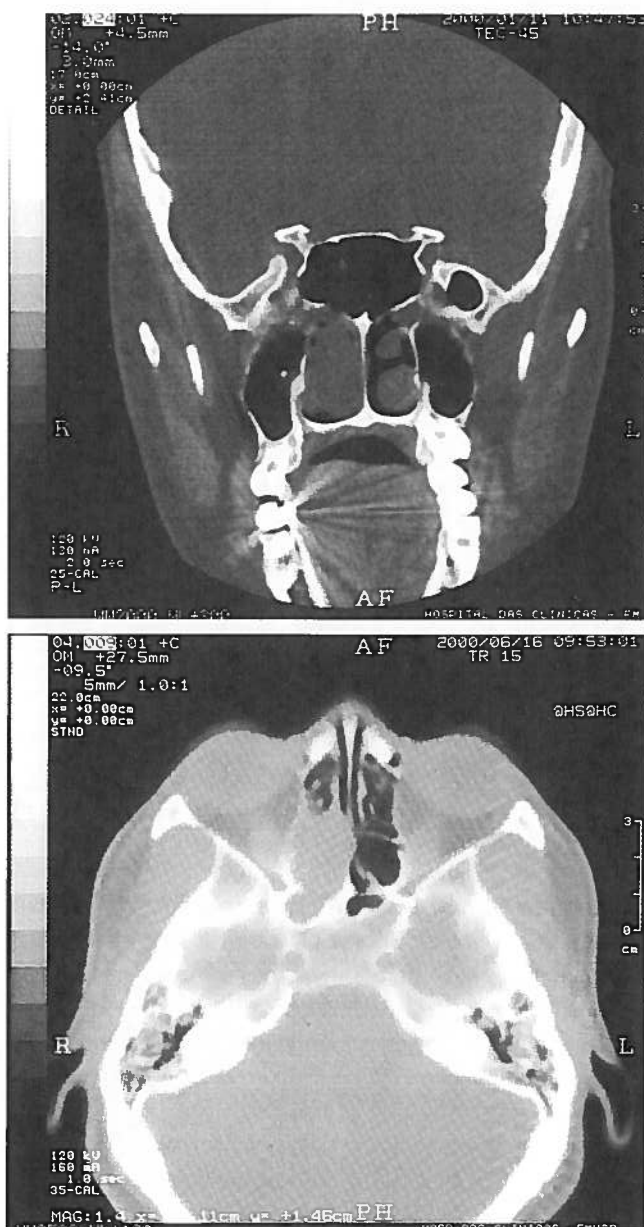


Figure 1. (a) Coronal CT scan, documenting polyp insertion in anterior wall of the right sphenoidal sinus. (b) Axial CT image confirming widening of the ostium of the right sphenoidal sinus and its involvement by the polyp.

region of the nasal cavity, invading the choana through the sphenoethmoidal recess from the sphenoid ostium and are within this sinus (Figure 1).

The treatment of all choanal polyps is surgical and consists of complete excision of the polyp, its pedicle and insertion in the sinus (Weissman et al., 1991; Crampete et al., 1995; Eloy et al., 1996). ESS offers excellent visibility of all the sinuses involved, and hence, it is an effective procedure for treating SCP (Crampete et al., 1995; Lopatin et al., 1997; Ileri et al., 1998).

During excision of SCP, removal of the postero-inferior part of the middle turbinate is optional. According to Ileri et al.

(1998), resection of this region improves the area exposed, however, at our department we prefer to preserve the nasal physiology and anatomy to a maximum so we don't perform it. The ostium of the sinus should be widened and any unhealthy component that still remains must be removed to prevent recurrences (Crampete et al., 1995; Ileri et al., 1998). Simple polypectomies are associated with greater recurrence rates (Eloy et al., 1996).

All six patients underwent ESS with complete polyp and pedicle resection in the sphenoidal sinus. Pathological analysis revealed an inflammatory polyp in all cases.

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