

# Endoscopic sinus surgery for antrochoanal polyps

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## INTRODUCTION

Endoscopic sinus surgery (ESS) has become popular for treatment of sinus disease. In the concept of Messerklinger (1985), Stammberger (1986), Kennedy (1985) and others, ESS is primarily used for ethmoidal surgery, because recurrent maxillary sinusitis is usually secondary to ethmoidal pathology and resolves after surgery of the middle meatus. Primary disease in the maxillary sinus, however, is still operated by means of the classical transantral procedure, although Wigand (1981) states that he also operates upon the maxillary sinus with an endoscopic approach.

Antrochoanal polyps develop from a cyst in the maxillary sinus and herniate through the maxillary ostium via the middle meatus into the choane (Berg et al., 1988). Antrochoanal polyps are usually unilateral, and occur mostly in children and young adults. There is no relation with chronic sinusitis (Chen et al., 1989). Until now, no studies of ESS for this indication have been reported. In this paper, we report on five patients with antrochoanal polyps operated endoscopically.

## MATERIAL AND METHODS

### *Patients*

Between 1987 and 1989, five patients (one female and four males) underwent endoscopic nasal surgery for an antrochoanal polyp, at the Free University Hospital, Amsterdam, The Netherlands. The age ranged between 13 and 25 years. One patient was operated under local anaesthesia, the other four under general anaesthesia. Three patients had earlier operations for nasal polyps: one Caldwell-Luc procedure and two polypectomies.

### *Technique*

After topical anaesthesia of the nasal mucosa with packs soaked in xylomethazolin 1%, and tetracaine 2%, a local anaesthesia (lidocain 1% with adrenalin 1/100.000) is infiltrated near the natural ostium of the maxillary sinus. When the

ostium is narrow, it is widened using the back-biting forceps and the upbiting Blakesely in the anterior-inferior direction. In many cases, the ostium is already wide due to pressure of the polyp itself. After the ostium is sufficiently widened, the polyp is drawn out of the maxillary sinus.

## RESULTS

In all patients, the immediate postoperative result was excellent, and no complications were seen. The whole surgical procedure only takes several minutes, and no packing is required. In three of the five patients, the polyp came out as a whole, while in the two other patients the polyp broke at the stalk, but could eventually be removed in total. Pathology showed in all cases the structure of normal nasal polyps with very little or no eosinophils. Follow-up is available in all patients, and ranges from 1 to 13 months (median 4 months). No recurrences were seen.

## DISCUSSION

Antrochoanal polyp is a condition which presents in the maxillary sinus, and only secondarily extends to the nasal cavity. It is commonly managed by means of the transantral Caldwell-Luc approach (Chen et al., 1989). However, the disease occurs often in children. The risk for damage to the developing dentition and bone growth centres of the maxilla, with consequent maxillary hypoplasia, is present with the transantral approach. Our results show that ESS presents an ideal alternative for this procedure, with the minimal morbidity. We therefore recommended ESS for treatment of antrochoanal polyps.

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