

# Bilateral Antrochoanal Polyps: A Rare Variation of A Common Clinical Entity

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## ABSTRACT

**Background:** Epistaxis is a common condition, with about 6% of cases requiring medical intervention due to severe or recurrent bleeding. Posterior epistaxis often necessitates surgical management when conservative measures fail.

**Objective:** To assess the effectiveness of transnasal endoscopic sphenopalatine artery ligation (TESPAL) in refractory epistaxis.

**Methods:** A case series of six patients with severe or recurrent epistaxis unresponsive to conservative treatment was analyzed. All patients underwent TESPAL with or without middle meatal antrostomy. Outcomes included bleeding control, complications, and hospital stay.

**Results:** All patients achieved complete control of epistaxis following TESPAL. The procedure was associated with minimal complications, good patient tolerance, and reduced hospital stay.

**Conclusion:** TESPAL is a safe, effective, and minimally invasive option for managing refractory epistaxis, offering high success rates with low morbidity and shorter hospitalization.

**Keywords:** Epistaxis, refractory epistaxis, TESPAL

## INTRODUCTION

A polyp is a benign, soft, painless, mucosal outgrowth arising from the lining of a hollow organ (commonly nose, paranasal sinuses, colon, etc.), usually due to chronic inflammation, allergy, or irritation. Antrochoanal polyps (ACPs) are benign solitary polypoidal lesions originating from the maxillary sinus mucosa. They typically protrude through the maxillary ostium into the middle meatus and extend posteriorly toward the choana and nasopharynx.<sup>1</sup> Antrochoanal polyps are mostly unilateral and originating from the maxillary sinuses. While ACPs represent approximately 4–6% of all nasal polyps, they are predominantly unilateral and occur most frequently in children and young adults.<sup>1</sup> Bilateral occurrence is an exceedingly rare clinical entity, with very few cases reported in global literature.<sup>2</sup> In exceptional instances, these polyps can extend beyond the nasopharynx into the oropharynx, leading to atypical symptoms such as dysphagia, voice changes, and potential airway compromise.<sup>3</sup> This has also been seen in this particular case.

## CASE

An 18-year-old male presented to the outpatient department with a 1.5-year history of progressive bilateral nasal blockage, headache, and persistent nasal discharge. The patient also reported a significant change in his voice (hyponasal voice) over the preceding 5 months. On anterior rhinoscopy, both nasal cavities were found to be completely filled with pale

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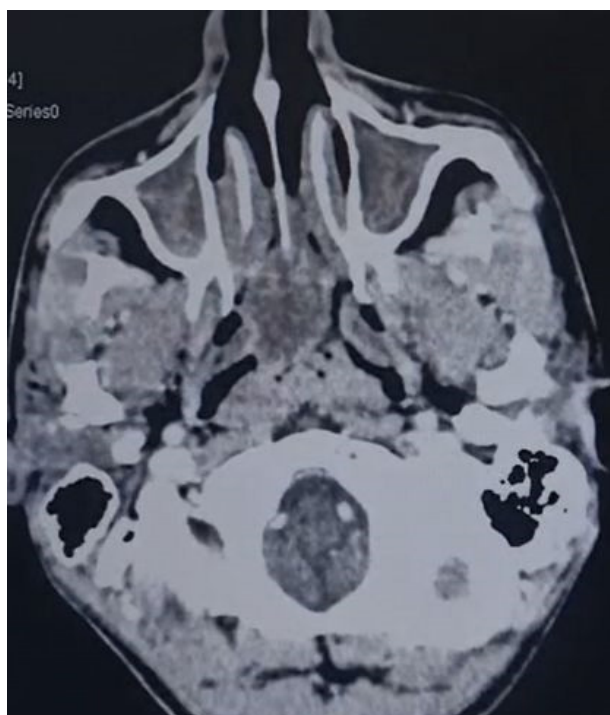
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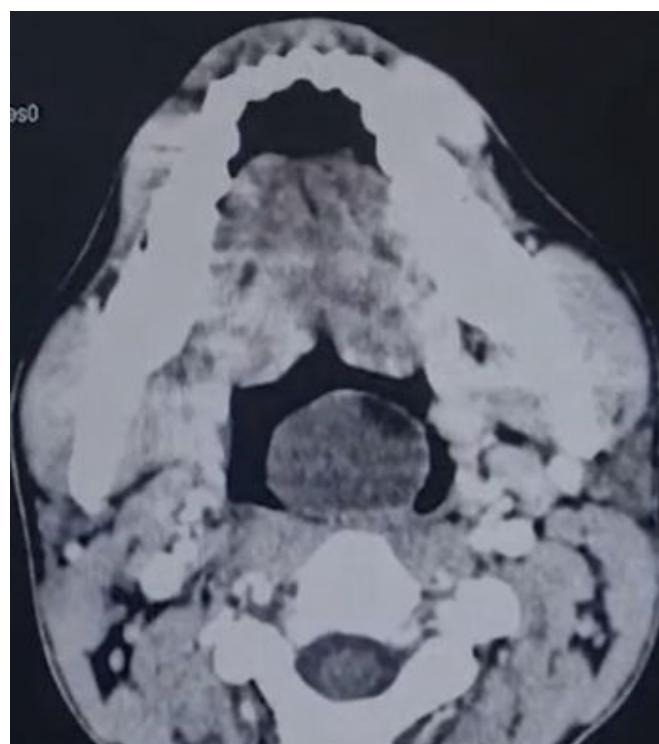
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polypoidal tissue. Oral examination further revealed that this polypoidal tissue extended inferiorly, obliterating the oropharynx and displacing the soft palate anteriorly. Diagnostic nasal endoscopy (DNE) was attempted; however, the scope could not be passed on either side due to the total obstruction of the nasal passages by the mass. On probing, it was insensitive to touch, mobile, soft, boggy, fluctuant and no bleeding. Probe can be passed medially laterally around the AC Polyp. Contrast-enhanced computed tomography (CECT) of the paranasal sinuses confirmed the presence of bilateral soft tissue masses originating from both maxillary sinuses, filling the nasal cavities and nasopharynx, with a distinct extension into the oropharynx.



**Fig. 1:** Axial Section of a contrast enhanced Computed Tomography of the Nose PNS at the level of Maxillary Sinus, showing homogeneous opacification of bilateral maxillary sinus with no enhancement

The patient was taken up for Functional Endoscopic Sinus Surgery (FESS) under general anesthesia. Intraoperatively, the oronasal polyp was found to be extensive; the oropharyngeal and choanal portions were gently delivered and removed via the oral cavity to prevent trauma to the narrow nasal passages, while the nasal and antral components were cleared endoscopically.<sup>3</sup> The natural ostia of both maxillary sinuses were widened to ensure complete removal of the antral bases. The excised specimen was a massive, firm, pale mass measuring  $11 \times 7 \times 3$  cm in total dimensions. Histopathological examination of the biopsy confirmed the diagnosis of a benign inflammatory antrochoanal polyp, showing no evidence of malignancy or specific granulomatous infection. Postoperatively, the patient experienced relief from nasal obstruction and a gradual restoration of his normal voice.



**Fig. 2:** Axial Section of a Contrast Enhanced Computed Tomography of the Nose PNS at the level of Oropharynx showing polyp extending to the oropharynx.

## DISCUSSION

Bilateral antrochoanal polyps are considered a rarity in clinical practice, as the condition is almost always unilateral.<sup>1</sup> The exact etiopathogenesis remains unknown, though chronic maxillary sinusitis and mucosal edema are frequently implicated as contributing factors. While unilateral ACPs are often not associated with systemic conditions, bilateral cases may show a higher correlation with allergies and chronic rhinosinusitis.<sup>2</sup> The clinical presentation in this case was particularly severe due to the oropharyngeal extension, which is an unusual “fourth stage” of polyp growth that can mimic tonsillar hypertrophy or oropharyngeal malignancy.<sup>3</sup> Such massive polyps can lead to significant morbidity, including obstructive sleep apnea and dysphagia.

Diagnosis relies on a combination of clinical examination, endoscopy, and imaging. CECT is the gold standard for assessing the bony anatomy and the full extent of the lesion, particularly to identify the widening of the maxillary ostia which distinguishes ACPs from other sinonasal masses.<sup>1</sup> Surgical management via FESS is the treatment of choice, as it allows for excellent visualization and complete clearance of the antral attachment, which is vital to prevent recurrence.<sup>2</sup> In cases with significant oropharyngeal involvement, a combined trans-oral and trans-nasal approach is often necessary to safely deliver the large mass.<sup>3</sup> Long-term follow-up is essential, although recurrence rates for ACPs after thorough endoscopic removal are generally low.<sup>2</sup>

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