

## Case Report

# An unusual presentation of sphenochoanal polyp

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## ABSTRACT

Sphenochoanal polyp is a rare entity. Isolated polyps arising from mucosa covering the anterior wall of the sphenoid sinus or sphenoethmoidal recess extending till oropharynx is extremely rare. We aim to report a rare case of sphenochoanal polyp with a slender, unusually long stalk which extended till nasopharynx leading to a large bulky polypoidal mass extending till oropharynx. Due to its posterior location, sphenochoanal polyps are often diagnosed late as they can be easily missed in clinical examination. We intend to emphasize the combined use of diagnostic nasal endoscopy and computed tomography imaging in patients presenting with unilateral or bilateral nasal obstruction, snoring and recent onset of sleep disturbances. Treatment includes endoscopic excision of polyp and cauterization of the base of the stalk. Widening of the sphenoid sinus ostium is done when necessary. Early and complete removal and regular follow up is essential to prevent complications.

**Keywords:** Sphenochoanal polyp, Choanal polyp, Endoscopic excision

## INTRODUCTION

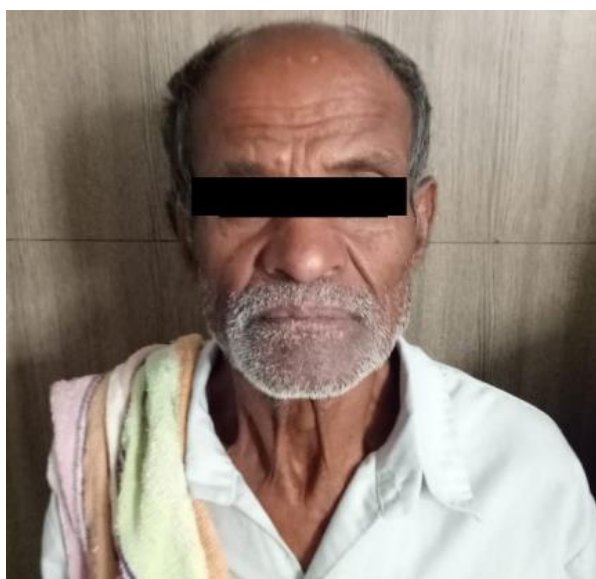
A sphenochoanal polyp is a benign mass originating from the mucosa covering the anterior wall of sphenoid sinus near the sphenoid sinus ostium or from the sphenoethmoidal recess and extending to the choanae via sphenoethmoidal recess. It usually presents with complaints of unilateral nasal obstruction or bilateral nasal obstruction when it enlarges to occlude nasopharynx or when it enters the oropharynx, nasal discharge, facial pain, ear symptoms, snoring and rarely as an oropharyngeal mass. Solitary polyp arising close to anterior wall of sphenoid sinus and extending till the oropharynx is extremely rare.<sup>1</sup> Treatment includes endoscopic excision of the polyp and widening of sphenoid ostium if required. We present a case of a large sphenochoanal polyp with an unusually long stalk presenting as an oropharyngeal mass which was completely removed through endoscopic approach.

## CASE REPORT

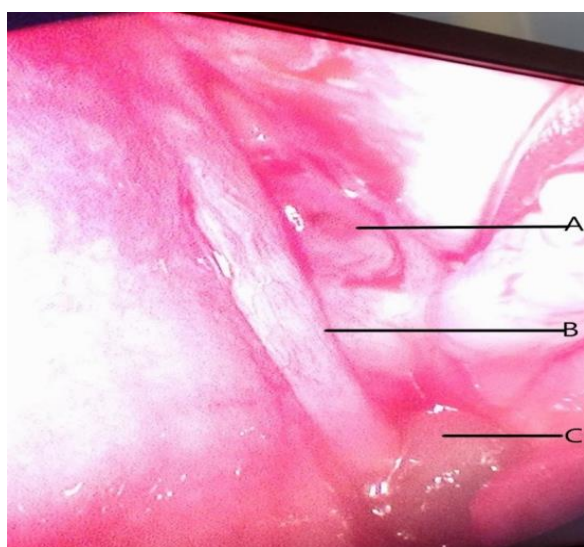
A 74-year-old elderly man, farmer by occupation presented to ENT OPD with complaints of foreign body sensation in the throat since 4 months and feeling of mass in the throat which was initially small and progressed over 4 months to present size (Figure 1). He also complaints of snoring and occasional non-productive cough since 4 months. Patient claimed that he could feel the mass when he puts his finger inside the mouth while leaning forward. He did not have throat pain, dyspnoea, dysphagia, odynophagia, dysphonia, hemoptysis, nausea, vomiting or hematemesis. There was no history of nasal obstruction, nasal discharge, nasal bleed, hyposmia, diplopia or diminished vision. Past history was not contributory and patient is a non-smoker.

On examination of oropharynx, there was a solitary cystic swelling, approximately 5×4 cm in front of the posterior

pharyngeal wall which touched the posterior third of the tongue, when the patient was in propped up position. It was insensitive to touch and did not bleed on touch. On anterior rhinoscopy, nasal cavity looked normal. On detailed diagnostic nasal endoscopy, there was a thin, long, slender stalk arising from the sphenothmoidal recess which extended till the posterior part of the septum and into the nasopharynx leading to a bulky polypoidal mass which extended till the oropharynx, a part of it being situated in nasopharynx and partly in oropharynx, partially pushing the soft palate anteriorly. The long, slender stalk extending till the nasopharynx leading to a bulky mass extending till the oropharynx resembled a military flail (Figure 2).



**Figure 1: 74-year-old elderly man presented to our ENT OPD with complaints of foreign body sensation in throat and recent onset snoring.**



**Figure 2: Intraoperative nasal endoscopy. (A) sphenoid sinus ostium, (B) long stalk of sphenchoanal polyp, (C) bulky polypoidal mass.**



**Figure 3: Computed tomography (coronal view) of the paranasal sinuses showing the stalk of the sphenchoanal polyp appearing as a bulbous projection close to the sphenoid ostium, in the sphenothmoidal recess and soft tissue density in the sphenoid sinus.**

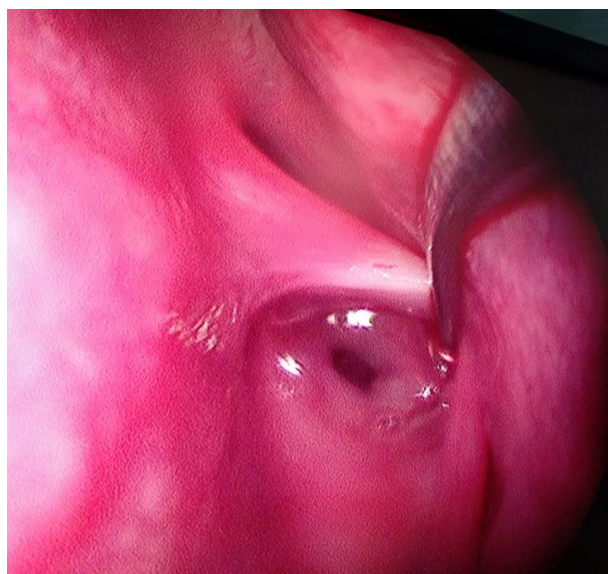


**Figure 4: (A) Stalk of the polyp, (B) polypoidal mass extending into the nasopharynx.**

All routine blood investigations were done and was found to be within normal limits except absolute eosinophil count which was raised (870 cells/mm<sup>3</sup>). CT scan of paranasal sinuses showed a stalk appearing as a bulbous projection close to sphenoid sinus ostium, anterior and inferior to it and extending downwards along the posterolateral aspect of the nasal septum on the left side and a large hypodense soft tissue opacity appearing to be hanging from the stalk into the nasopharynx. Mucosal thickening in bilateral sphenoid sinus was noted (Figure 3 and 4).



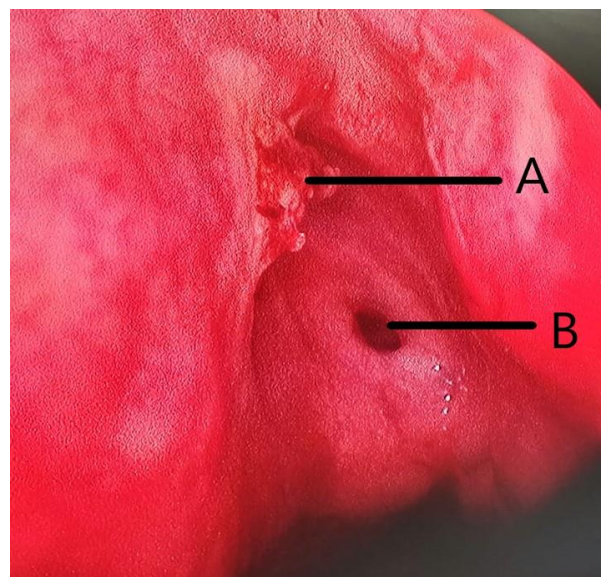
Patient was taken to the OR. Under general anaesthesia, endoscopically, stalk of the polyp was visualized. Using a ball probe we could confirm that the stalk was not adherent to any part of the septum and was attached only to its site of origin at the sphenothmoidal recess (Figure 5). The stalk was then cut and base was cauterized using electrocautery (Figure 7). Widening of sphenoid sinus ostium was done. The large polypoidal mass was then removed through the oral cavity (Figure 6). Postoperatively, patient was managed using antibiotics, analgesics, antihistamines, decongestants and saline nasal douching. Histopathology report showed inflammatory polyp. Patient was reviewed in our OPD after 1 week and after 3weeks postoperatively and there were no complications or recurrence (Figure 8).



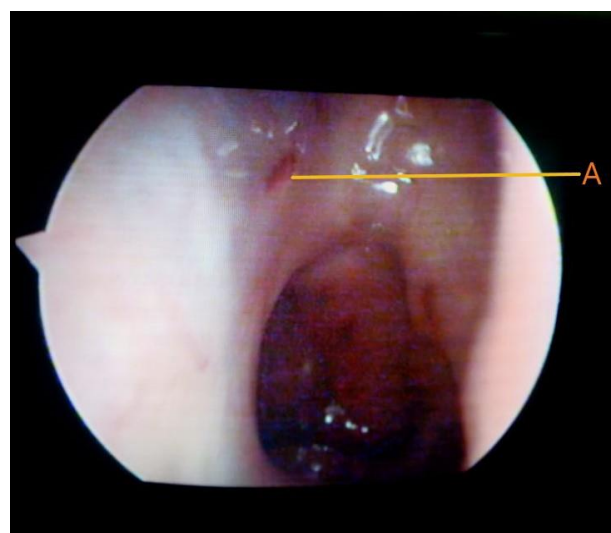
**Figure 5: Confirming the attachment of the stalk using a ball probe.**



**Figure 6: Excised specimen of the sphenchoanal polyp measuring 8×5×4 cm.**



**Figure 7: After excision of the stalk, base was cauterized using electrocautery; (A) base of the stalk of sphenchoanal polyp, (B) sphenoid sinus ostium.**



**Figure 8: Nasal endoscopy done one week postoperatively in our OPD. (A) cauterised base of the sphenchoanal polyp.**

## DISCUSSION

Sphenchoanal polyp is a rare occurrence. Sphenchoanal polyp was first reported by Zuckerkandl.<sup>2</sup> More than 50% of sphenchoanal polyps were observed in children.<sup>3</sup> Most of the reported cases of sphenchoanal polyp are solitary.<sup>4</sup> Due to their relatively deep location, they may result in late presentation. Identification of the site of origin clinically and radiologically is important to plan the surgery. Due to the presence of important structures including carotid artery and optic nerve adjacent to sphenoid sinus, diagnostic nasal endoscopy (DNE) is mandatory along with neurological and ophthalmological assessments.

The rarity of sphenoid sinus lesions and its rapid progression necessitates investigation of underlying pathology especially malignancy.<sup>5</sup> Histopathological examination may also differentiate it from meningocoele, angiofibroma and inverted papilloma. However, in this case, the polyp was of inflammatory etiology. Histologically, polyps consist of a cystic centre surrounded by edematous stroma with inflammatory cell infiltration. Its surface is covered with respiratory epithelium. Though some studies suggest an association between nasal allergy and occurrence of sphenoidal polyps, our patient did not have any history of nasal allergic symptoms.

In case of patients presenting with unilateral or bilateral nasal obstruction, a thorough clinical examination including examination of the oral cavity and oropharynx including palatal position, palatal symmetry and a detailed diagnostic nasal endoscopy should necessarily be performed to avoid missing subtle findings which would lead to the diagnosis. In this patient, as the stalk was thin and slender and was situated far posteriorly, we were unable to visualize it during clinical examination. Cases like these emphasize the importance of nasal endoscopy being done for every patient presenting to OPD with nasal obstruction, recent onset of snoring and sleep disturbance. We intend to make surgeons aware that such situations can arise and to insist on the need for nasal endoscopy and imaging in the form of computed tomography (CT) or magnetic resonance imaging (MRI) in patients presenting with nasal obstruction, snoring and recent onset of sleep disturbance as the possibility of a sphenoidal polyp cannot be ruled out.

The best way to determine the origin of the polyp is through CT and MRI. Drainage ostium of maxillary and sphenoid sinus, sphenoidal recess and middle meatus are used as anatomic references.<sup>6,7</sup> If the sphenoid ostium is found to appear widened and there is a demonstrable continuity between the sphenoid opacity and the choanal polyp though the ostium, then the lesion is a sphenoidal polyp.

Treatment of sphenoidal polyp includes endoscopic polypectomy with cauterization of the base of the stalk and widening of the sphenoid sinus ostium. Enlargement of the sinus should be done in medial and inferior direction. This also helps better visualization of the sinus intraoperatively.<sup>8</sup> Recurrence can be prevented by complete removal of the polyp. Regular follow-up is essential.

## CONCLUSION

Sphenoidal polyp is a rare entity when compared to antrochoanal polyp. Due to its rarity and deeper location,

diagnosis is often delayed or missed. The combined use of DNE and CT is suggested for accurate diagnosis of isolated sphenoid sinus lesions. Endoscopic removal is associated with low morbidity, comprehensive elimination of polyp including its site of origin, which prevents recurrence. Early removal and long-term follow-up of sphenoidal polyp usually prevents complications.

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