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Sphenchoanal Polyp

Sphenchoanal polyp is a rare form of nasal polyp. There are three different types of choanal polyp: Antrochoanal polyp, Sphenchoanal polyp and Ethmoidochoanal polyp reported in literature. Among them Antrochoanal polyp is the commonest while Ethmoidochoanal being the rarest one. In this article we are presenting a case of sphenchoanal polyp.

Keyword: Sphenchoanal, Choanal polyp, Antrochoanal

INTRODUCTION:

Isolated polyp arising from any of the sinus and extending to the nasopharynx is called a choanal polyp. When the polyp arises from the sphenoid sinus and extends to the choana it is known as sphenchoanal polyp.¹ Antrochoanal polyp is common than a sphenchoanal polyp. Sphenchoanal polyp has three different parts i.e, intrasinusoidal, ostial and extrasinusoidal.² The aetiology of sphenchoanal polyp is still unclear. As the symptom of antrochoanal polyp and the sphenchoanal polyp are similar, diagnosis may be very confusing. Correct diagnosis of these kind of polyp avoid unnecessary surgical intervention. Adequate preoperative evaluation by proper clinical examination, nasal endoscopy and computerized tomography is mandatory to ascertain correct diagnosis and to facilitate planning of appropriate surgical procedure. This article highlights the salient features of sphenchoanal polyp and its management.

CASE REPORT:

Miss M C, 17 years old female from Dang came in ENT outpatient department with complain of bilateral nasal obstruction since last 5 months. Obstruction was more on right nasal cavity. She was having continuous and progressive nasal obstruction without any aggravating and relieving factor. The nasal obstruction was associated with occasional mucopurulent nasal discharge. On anterior rhinoscopy a polypoidal tissue was found in right nasal cavity. It was insensitive, did not bleed on touch and was not shrinkable, seemed to be arising more posteriorly with free middle meatus on the right side of nasal cavity. Left nasal cavity was normal on examination. Rigid nasal endoscope showed a polyp occupying both choana with stalk arising from the sphenoid sinus (Fig.1). Computerized tomography (CT) scan of the nose and paranasal sinuses showed homogenous opacity in left sphenoidal sinus and the choana with normal maxillary antrum in that side (Fig. 2). She was admitted with a diagnosis of right sphenochanal polyp and was planned for endoscopic sinus surgery.

She was investigated for fitness of general anesthesia. On endoscopic sinus surgery under general anesthesia the polyp was removed after enlarging the sphenoid sinus opening (Fig. 3). Procedure was followed by the nasal instillation of the oxymetazoline and was discharged on next day with antibiotics, analgesics along with alkaline nasal douching for a week. She was advised for regular follow up for once a week for 3 weeks in outpatient department for nasal endoscopy guided suctioning. At the end of the 6 weeks, the nasal endoscopy showed nasal cavity free of polyp and enlarged left sphenoid sinus opening (Fig. 4). Her postoperative histopathology report was also followed up which came to be inflammatory polyp without any evidence of malignancy.



Fig. 1: Sphenchoanal polyp along with its stalk arising from sphenoid sinus

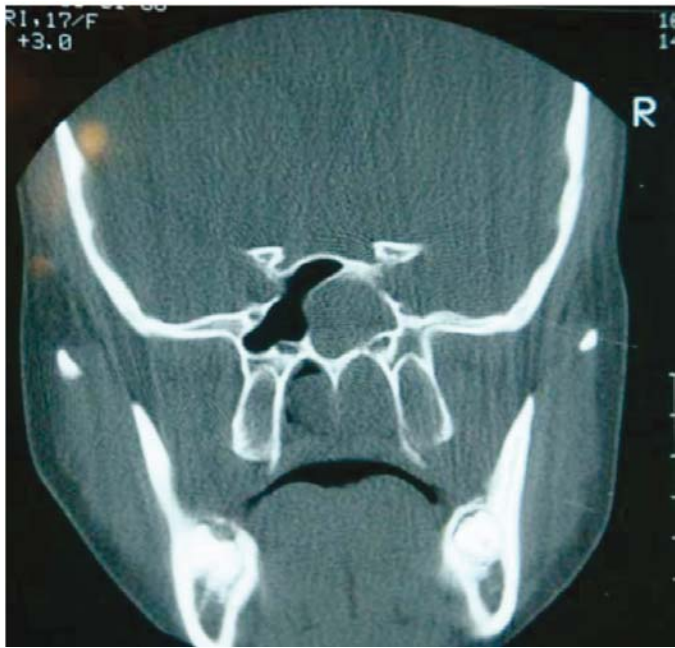


Fig. 2 : Homogenous opacity in the right sphenoid sinus and the choana



Fig. 3 : Polypoidal tissue delivered from the nasal cavity and sphenoid sinus.

DISCUSSION:

As already mentioned sphenchoanal polyp is one of the varieties of choanal polyps. The other two forms of choanal polyps are antrochoanal polyp and ethmoidochoanal the later being very rare.³ However choanal polyps had not been reported to originate from frontal sinus.¹ There are several theories regarding origin of sphenchoanal polyp but none of them are universally accepted. Some authors have tried to link it with allergy.⁴ Patients with choanal polyp were more likely than general population to have allergic disease or atopy. However laboratory investigations with RAST and skin prick test yield the general impression that choanal



Fig. 4: Endoscopic view of enlarged sphenoid sinus opening at the end of 6 week following surgery

polyp formation is unrelated to allergy.⁵ Choanal polyps are also suggested developing from the intramural cyst present in the maxillary antrum or the sphenoid sinus.⁶ Thrombosis of the lymphatic vessel following sinus inflammation result in the formation of the intramural cysts. These intramural cysts gradually enlarge and exit through the ostium to develop choanal polyp. Berg⁷ had fluid aspirated from the choanal polyp and intramural cysts in the sinuses and has found similar concentration of the protein. As an ENT surgeon we have to differentiate sphenchoanal polyp from the antrochoanal polyp for appropriate management. Many of the times, young ENT surgeon get confused while diagnosing sphenchoanal polyp. We have tried to highlight salient features of sphenchoanal polyp in this article. First of all, computed tomography of nose and paranasal sinuses which is performed routinely in the cases of nasal polyps, if showed opaque sphenoid sinus and choana with free maxillary sinus is the likely indicator of a sphenchoanal polyp.⁷ Similar presentation was in our case too. If both maxillary and ethmoidal sinuses are opaque then it is important to study relationship of polyp with middle turbinate using nasal endoscope. Sphenchoanal polyp passes medial to middle turbinates leaving middle meatus free while antrochoanal polyp passes lateral to middle turbinate with visible stalk arising from the middle meatus area. We can also check the ostium of sinuses: whether ostia are widened or not as the stalk compress the ostium.⁸ If sphenoid ostium is widened and sphenoid sinus is opaque, choanal polyp is most likely to be sphenchoanal polyp. The best way to manage the sphenchoanal polyp is by using endoscopic guided microdebrider . It will allow the surgeon to remove bulk of the extrasinusoidal polyp and to follow the pedicle upto the intrasinusoidal compartment. As microdebriders are not available in many of the institute in our country we have to use endoscope, forceps and ball probe to dissect the intrasinusoidal portion of polyp.

CONCLUSION:

As sphenchoanal polyp is uncommon than antrochoanal polyp, vigilant clinical examination using rigid endoscope and careful radiological study is mandatory to diagnosis sphenchoanal polyp. This will avoid unnecessary exploration of maxillary sinus and inadequate surgery for a sphenochaoanal polyp.

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