



A Rare Case of Sphenchoanal Polyp

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ABSTRACT

A Sphenchoanal polyp is a rare form of nasal polyp which begins within the sphenoid sinus and extends through an enlarged sphenoid ostium into sphenoid recess and from there into choana. This has to be differentiated from other lesion like antrochoanal polyp, meningocele which is done by Diagnostic Nasal Endoscopy, Computed Tomography Paranasal Sinus and Magnetic Resonance . Once the diagnosis is confirmed endoscopic polypectomy can be done. This is a case report of 22 year old male who presented with unilateral nasal obstruction (left), was diagnosed to have sphenchoanal polyp for which he underwent endoscopic polypectomy.

KEY WORDS

Sphenchoanal polyp, Sphenoid recess, Endoscopic Sinus Surgery

INTRODUCTION

Based on the origin, choanal polyp can be classified into Antrochoanal polyp, Ethmoidochoanal polyp and sphenchoanal polyp, of which the ethmoidochoanal and sphenchoanal are rare. Sphenchoanal polyp has three different parts i.e. intrasinusoidal, ostial and extrasinusoidal. These sphenchoanal polyps crop up most often in adolescents and young adults. The etiology of it is unclear. Clinical features will be similar to that of antrochoanal polyp which will be often confusing. Diagnosis is confirmed by Diagnostic Nasal Endoscopy, Computed Tomography

Paranasal Sinus and Magnetic Resonance Imaging & surgical intervention is done. Pre-operative nasal endoscopic evaluation is mandatory, along with the neurological and ophthalmological assessments because of the presence of important structures adjacent to sphenoid sinus. A proper diagnosis and surgical treatment are the basis to prevent recurrence. The safety and efficacy of endoscopic removal of sphenchoanal polyp has been reported by researchers from different parts of the world⁽¹⁻⁶⁾.

CASE REPORT

A 22 year male patient working as a assistant engineer presented to the ENT department with the complaints of nasal obstruction for past 6 months more on left side without any aggravating and relieving factors. This was associated with mucopurulent discharge, post nasal drip, mouth breathing & snoring. There was no associated systemic disease. General and Systemic examination was normal.

Anterior rhinoscopic examination was done which revealed deviated nasal septum to left and pale glistening polypoidal mass in left nasal cavity medial to middle turbinate. Pale glistening polypoidal mass was seen in posterior rhinoscopic examination. Patient was advised Computed tomography of paranasal sinuses and Magnetic Resonance Imaging of Brain.

CT PNS revealed a polypoidal lesion measuring 4 x 3.4 x 1.6 cm in left posterior choanal space and Nasopharynx (figure 1)

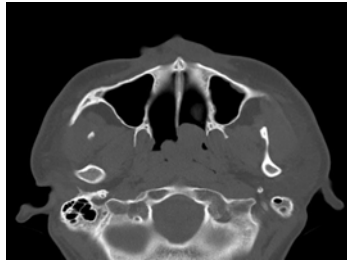


figure 1 CT PNS

MRI showed evidence of small bean shaped T1 & T2 hypointense polypoidal lesion measuring 2.4 x 3.4 x 1.6 cm in left posterior choanal space and Nasopharynx, with its extent upto sphenothmoidal recess. (figure 2)

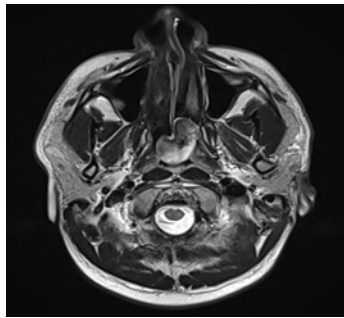


figure 2 MRI

Diagnostic nasal endoscopy revealed a pale polypoidal mass seen arising from the sphenoid sinus extending to left & right choana. The sphenoid ostium was widened. (figure 3,4,5). With all these investigations he was diagnosed to have Sphenchoanal polyp.



figure 3



figure 4



figure 5

Blood, urine investigations, ECG, chest Xray were normal.

Patient underwent endoscopic polypectomy under general anaesthesia. Submucosal resection of the septum was done. Through medial approach polyp was removed in toto via nasal cavity from the sphenoid ostium. Specimen (figure 6) was sent for histopathological examination.



(figure 6)

Pre and post operative period was uneventful. Patient was discharged on the 3rd post operative day with antibiotics and alkaline nasal douching. He was advised for regular follow up weekly once for 1 month, followed by monthly once for 3 months. HPE report was inflammatory polyp without any evidence of malignancy.

At the end of one month diagnostic nasal endoscopy was done showed nasal cavity free of polyp with widened sphenoid ostium. There was no recurrence of polyp till date.

DISCUSSION

The Sphenchoaanal polyp 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 Nasopharynx⁷. 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⁽⁸⁻¹⁰⁾. Its association with immunological deficiency and allergy is controversial

There is no sex predilection. Most common in the age group of adolescents (10 years) & young adults with the unilateral nasal obstruction or bilateral nasal obstruction if the polyp is large enough obstructing the Nasopharynx followed by headache will be their presenting complaints. Headache is due to blockage of sphenoid sinus. Few may have conductive hearing loss due to Eustachian tube block.

Clinical features, CT PNS, MRI, DNE aids in diagnosing this disease. Sphenoidochoanal polyp is seen between the nasal septum and middle turbinate. CT PNS also helps in identifying anatomical variations which forms a road map to surgery. MRI is not done routinely, preferred to rule out other differential diagnosis. The origin of the polyp should be identified in order to prevent recurrence of the polyp.

Endoscopic excision of the polyp is the treatment of choice. This method is the safest method of removal of the polyp. Endoscopic removal of intrasinus polyp is more effective than avulsion which has high rate of recurrence. Soh et al¹¹ emphasized the use of microdebrider for debulking the polyp then removing the intrasinus part completely after widening the ostium. Dadas et al¹² reported a case of sphenoidochoanal polyp which was successfully removed by partial removal of anterior wall of the sphenoid sinus after a sphenoidotomy and complete removal of polyp. Penavic et al.¹³ reported a case of sphenoidochoanal polyp in a 19 years old male patient which was successfully removed by powered instrument under endoscopic control.

Correct diagnosis and complete endoscopic excision of the polyp and regular follow up prevents the recurrence of the polyp. It has to be kept in mind that all choanal polyps are not antrochoanal polyps, there are other polyps like sphenoidochoanal and ethmoidochoanal polyp which has to be identified and managed accordingly.

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