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Case Report

Sphenchoanal polyp

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ABSTRACT

Introduction: Sphenchoanal polyp are rare tumours arising from sphenoid sinus. The main presenting complain is gradually progressing nasal obstruction. Sphenchoanal polyp mimics antrochoanal polyp clinically. To differentiate it from antrochoanal polyp, diagnostic nasal endoscopy, computer tomography and magnetic resonance imaging of the paranasal sinuses are the investigation of choice. Functional endoscopic sinus surgery is the line of treatment.

Case Report: A 33years old female presented with right nasal obstruction since 2 years. On Diagnostic nasal endoscopy polypoidal mass was seen partially obliterating the right nasal cavity not arising from middle meatus. CT scan showed polypoidal mass obliterating the nasal cavity, choana and Sphenoid sinus. It was completely excised by functional endoscopic surgery.

Conclusion: We present this rare case to highlight the use of diagnostic nasal endoscopy and Computed Tomography in the diagnosis and treatment of Sphenchoanal polyps

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1. Introduction

Choanal polyp are solitary, benign tumors arising from inflamed, edematous mucosa of the paranasal sinuses and extending over the draining ostium of the respective sinus reaching upto choana and obstructing nasopharynx. The polyp has three parts an intrasinus, ostial and extrasinus.¹ Any patient presenting as unilateral nasal obstruction with polyp extending upto level of choana to be arising from maxillary, ethmoid, sphenoid or frontal sinuses. According to Dabas, 4 to 6% of all nasal polyp majority are antrochoanal polyp² sphenchoanal and ethmoidchoanal are rare entities.³ In today's era of endoscopes more and more newer diagnosis are coming up as a rare presentation such as sphenchoanal polyp. Correct diagnosis of these kind of polyps is difficult due to its non-specific clinical presentation. Almost 50% of

sphenchoanal polyp are seen in children.⁴⁻⁶ We report a case of sphenchoanal polyp in 33 years old female which was successfully excised through endoscopic approach.

2. Case Presentation

A 33 years old female came presented to our out patient department with complaints of right sided nasal obstruction. The patient was asymptomatic since 2 years when she developed right sided nasal obstruction which was insidious in onset gradually progressive in nature associated with mouth breathing, snoring, headache and voice change. Patient was not relieved by medications. There was no history of nasal discharge, nasal bleed, loss of smell, post nasal drip and visual changes. On examination external nose appeared normal. On Anterior rhinoscopy, a single fleshy pale polyp was seen in right nasal cavity covered with mucopurulent discharge, insensitive to touch and did not bleed on touch. Posterior rhinoscopy showed a polypoidal

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mass occupying the nasopharynx. A polyp was seen to be arising medial to middle turbinate from the sphenoid ostium.

Computer tomography scan (Figure 1) showed no involvement of maxillary sinus, well-defined homogenous opacification was seen in right nasal cavity and sphenoid sinus extending posteriorly upto the choana. Axial cuts showed uniform opacity of right sphenoid sinus. There was no involvement of other sinuses hence diagnosed as sphenocchoanal polyp in right nasal cavity.

Patient underwent functional endoscopic sinus surgery under general anaesthesia. The polyp measuring 6*3*2 cm with the stalk of polyp arising from sphenoid sinus was excised en bloc and was delivered through the oral cavity (Figure 2).

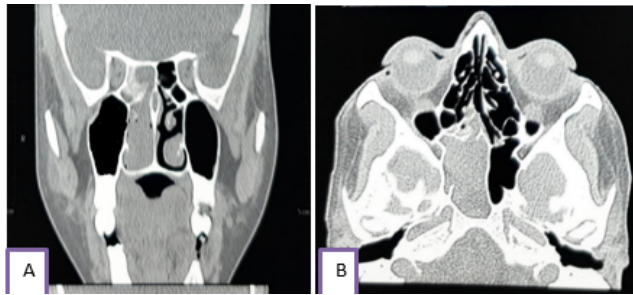


Fig. 1: A- coronal cut showing soft tissue density in right sphenoid sinus and nasopharynx. B. Axial cut showing soft tissue density in sphenoid sinus.



Fig. 2: Excised sphenocchoanal polyp

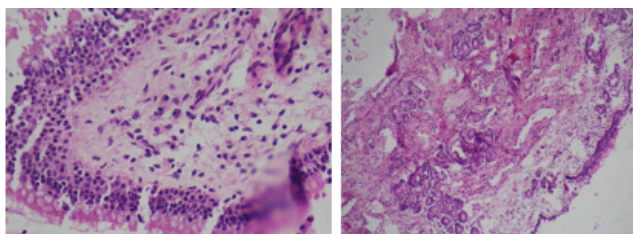


Fig. 3: Histopathological images.

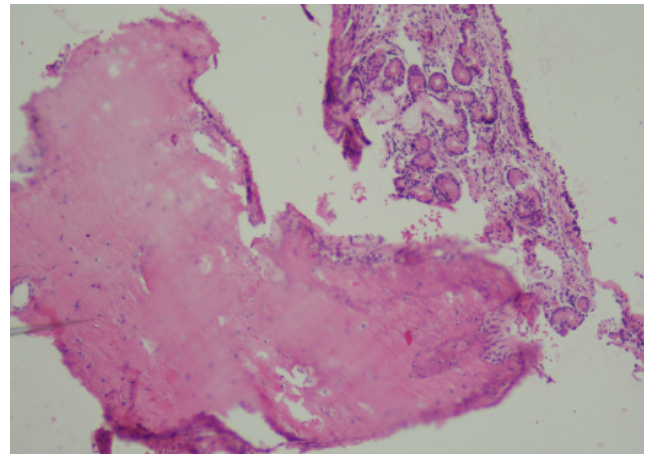


Fig. 4: Histopathology slide

The sphenoid ostium was naturally widened (Figure 3) and the sphenoid cavity was cleared of the secretions with no signs of bony destruction. Bilateral anterior nasal packing was done with merocel. Pack removal was done after 48 hours. The histopathological examination of the polyp showed an inflammatory polyp with no signs of malignancy (Figure 4). On regular follow up patient had no complaints or any sign of recurrence.

3. Discussion

Nasal polyps are benign nasal tumours and arising from any paranasal sinuses and extending towards choana and then nasopharynx. The pathology derives its name from the anatomical origin of the sinuses involved. Most common type is the antrochoanal polyp arising from maxillary antrum followed by ethmochoanal and sphenocchoanal arising from respective sinuses. In 1892 Zuckerkandl first reported sphenocchoanal polyp (6). Sphenocchoanal polyps are rare benign tumours arising from sphenoid sinus.^{7,8} Choanal polyps are rare accounting for 4-6% of all nasal polyps.

There is an association between choanal polyp and allergic diseases is seen among many studies but still the aetiology of the choanal polyp remains uncertain.⁹ The choanal polyps are believed to arise from intramural cysts in the antrum or the sphenoid sinus supported by Berg's study.¹⁰

The most important differential diagnosis for sphenocchoanal polyp is antrochoanal polyp as both are clinically and histopathologically indistinct.¹¹ Their usual clinical presentation is unilateral nasal obstruction, rhinorrhoea, snoring, oropharyngeal mass and eustachian tube defect.¹⁰ Histologically they are cystic centres surrounded by oedema with inflammatory cells, surface is covered by respiratory epithelium. Radiological investigation such as computer tomography or

Magnetic resonance of paranasal sinuses play a key role in distinguishing between the two.¹² Whereas other possible diagnosis include meningoencephalocele, nasopharyngeal angiofibroma, inverted papilloma can be differentiated on histopathology.⁸

Computer tomography of paranasal sinuses helps in localizing the sinus of origin, assessing the extent of the disease and planning the surgery. As in our case homogenous mass arising from sphenoid sinus and extending upto the choana and nasopharynx with proper aeration of other sinuses. Natural Ostium of Sphenoidal sinus was widened on CT Scan.¹² A large sphenoidal polyp may obstruct the outflow of maxillary sinuses, both the sinuses may appear opaque on CT scan hence making it difficult to assess the site of origin. Diagnostic nasal endoscopy gives a valuable information as an adjuvant to CT scan in these patients. Sphenoidal polyp being a rare presentation needs a proper and detailed investigation prior to surgery. Ophthalmological assessment is advisable to rule out any compression symptoms due to sphenoidal mass.

Functional endoscopic sinus surgery is the treatment of choice in Sphenoidal polyp. Aim is to remove polyp en bloc with subsequent widening of sphenoid ostium along inferior and medial wall and clearing of sinuses. Endoscopic procedure is preferred over simple polypectomy as sphenoid sinus is closely related to important anatomical structure better visualisation and less aggressive procedure with lesser chances of recurrence.¹³

4. Conclusion

Sphenoidal polyp is a rare presentation, its mimics clinically and histologically to other sinonasal polyposis. An integrated approach with CT- scan of paranasal sinuses along with diagnostic endoscopy to confirm the diagnosis is required. As it is misleading disease wrongly diagnosed that can lead to unnecessary complication and recurrence of the disease.

5. Source of Funding

None.

6. Conflict of Interest

None.

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