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CASE STUDY

RECURRENT SPHENOCHOANAL POLYP EXCISION BY WIGAND'S TECHNIQUE

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ABSTRACT

Sphenochoanal polyp is a rare entity of the paranasal sinuses, which arise from the sphenoid sinus and extend into the nasopharynx. It mimics antrochoanal polyp in symptomatology and hence diagnosis requires radiological guidance. Recurrent sphenochoanal polyp poses further challenge to the ENT surgeon, for the cause of recurrence also has to be cleared. Here we discuss a case of recurrent sphenochoanal polyp in its clinical, radiological, histopathological and surgical aspects. Wigand's technique of endoscopic sinus surgery can be of benefit to give optimum results as per our experience.

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INTRODUCTION

Choanal polyps are non-neoplastic solitary nasal masses that arise in the paranasal sinuses, project through the draining ostium of the sinus and finally lodge in the nasopharyngeal vault through the choana. Commonly they arise in the maxillary sinuses (1) and rarely from the sphenoid sinuses and extremely rarely from the ethmoid sinuses.

The polyp can be divided into 3 parts:

a. Intra-sinusal
b. Ostial
c. Extrasinusal

The cause for the polyp is obscure and generally presents with nasal blockage, headache not responding to medications and rhinorrhoea.

Both Antrochoanal and Sphenochoanal polyps present similarly and hence may cause confusion but adequate pre-operative evaluation with disgnostic endoscopy and computed tomography aid in correct diagnosis.

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Recurrent sphenochonal polyps are a challenge in the sense that the cause of recurrence has to be cleared along with providing symptomatic relief. Inadequate removal not only causes recurrence leading to morbidity but also additional exposure to general anaesthesia and surgical stress.

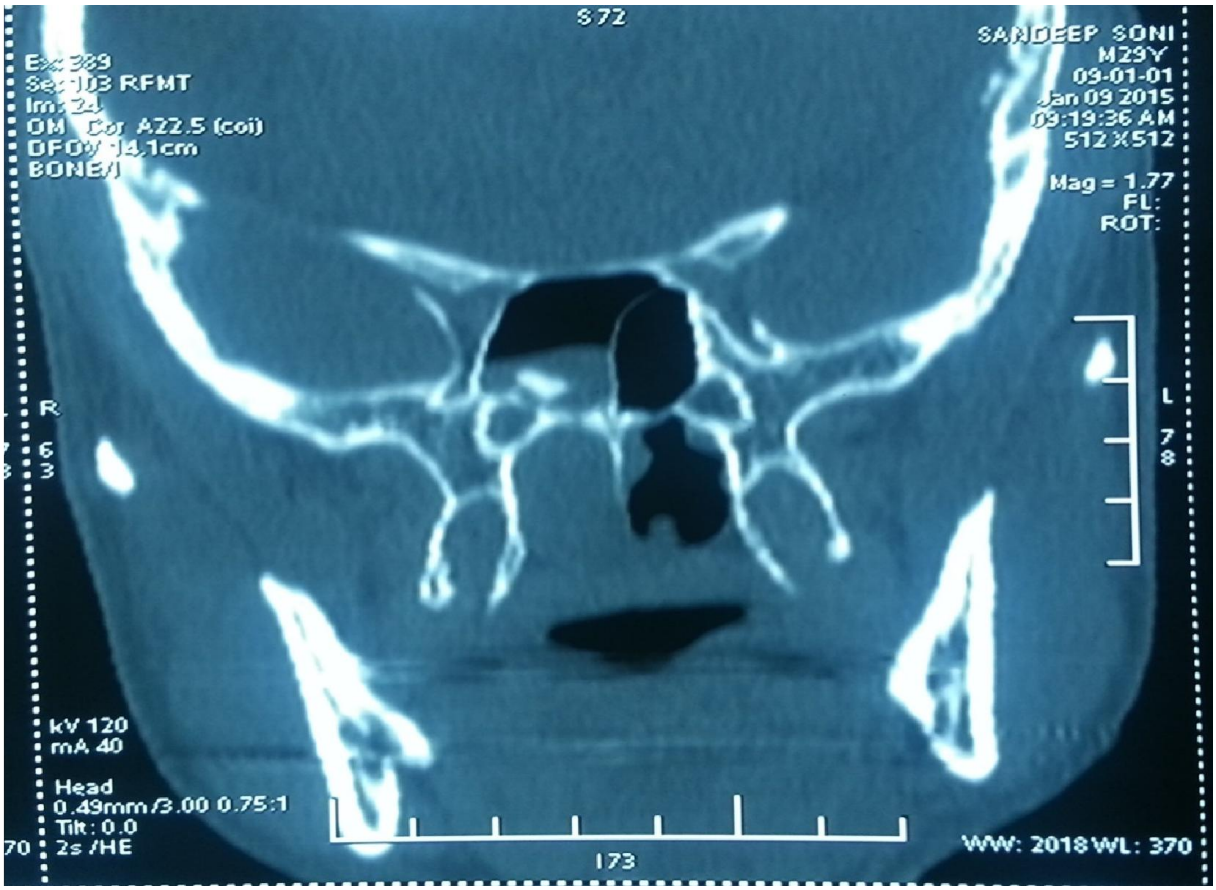
Wigand's technique may be of advantage in revision surgeries where the landmarks are obscured by first surgery. It is a posterior to anterior approach. It is based on starting dissection from a known landmark to other less identifiable regions.

Case report

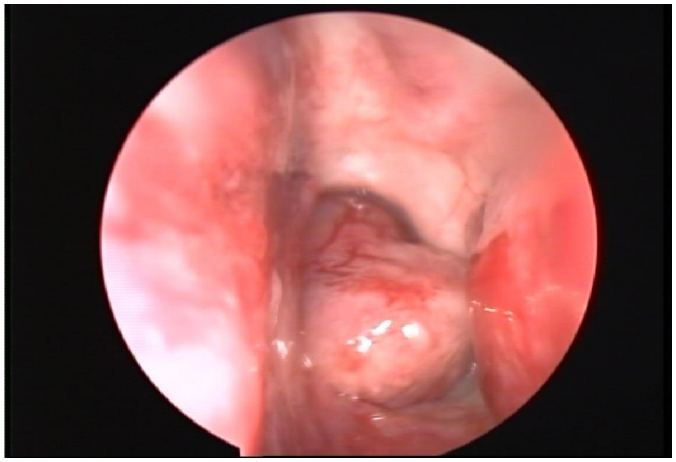
A 28yr old male presented with bilateral nasal obstruction which was more on right side since 1yr. He had a history of snoring and post nasal drip and headache. There was no association with allergy or atopy or ontological complaints. There was a history of previous nasal endoscopic surgery for similar complaints 8 yrs back of which no records were available. But patient had relief of symptoms for 7 yrs till he developed the above mentioned symptoms since last 1 year. On examination, there were adhesions between inferior turbinate and nasal septum on right side and no mass was visualised on anterior rhinoscopy. But the globular mass was visible in oropharynx with minimal elevation of the soft palate. Computed tomography (CT) of the paranasal sinuses revealed a midline cystic mass in the nasopharynx with its implantation

in the right sphenoid sinus and protruding into Bilateral posterior choanae. Rest of the paranasal sinuses were normal. A small osteoma was noticed in the right sphenoid sinus adjacent to the origin of the mass.

During the surgery, after release of right sided adhesions, a polypoidal globular mass protruding through bilateral choanae but with its origin in right sphenoid sinus was confirmed and debulked near the sphenoid ostium, by following Wigand's technique and mass delivered through oral cavity.



The middle turbinate and superior turbinate was trimmed for better exposure of the sphenoid ostium which was widened and the implantation of the mass behind the osteomatous bony projection observed on inferolateral wall of sinus. Bony growth was removed and the attachment of the amss was removed along with a cuff of surrounding normal mucosa.



Patient had total symptomatic relief post operatively. Follow up examination with endoscope showed wide and patent sphenoid ostium without any evidence of regrowth of polyp, over a period of ___ months.

Histopathology of the specimen showed inflammatory polyp, which was lined by respiratory epithelium and fibrocollagenous tissue core with lymphoid infiltration with no evidence of atypia or malignancy.

DISCUSSION

The sphenochoanal polyp is a rare disease (1,3,6). This solitary polyp arises from mucosal lining of sphenoid sinuses protruding through the sphenoid ostium into sphenoethmoid recess and then into the choana and nasopharynx.

In this case the mass was seen in the oropharynx with minimal elevation of soft palate. Etiology of antrochoanal polyp and sphenochoanal polyp overlap, leading to confusion in diagnosis but opacification of sphenoid sinus and choana with normal maxillary sinus and middle meatus on CT should clear the doubts, as in our case. CT should guide in locating the attachment of the polyp within sphenoid to avoid damage to vital structures like optic nerve and internal carotid artery. In our case, CT scan showed attachment of polyp to inferolateral wall and hence no risk of damage to either of the above structures, but it also showed an osteoma like bony projection which obscured the visualisation of origin of polyp and hence could be a cause of incomplete removal in previous surgery.

Endoscopic sinus surgery is the choice of treatment for this disease which facilitates total removal of the disease. Wigand's technique was employed in our case in view of revision surgery and to ensure avoidance of damage to other paranasal sinuses which are normal.

Histologically, choanal polyps are lined by respiratory epithelium with fibrous stroma as in our case. Some studies showed more of eosinophilic infiltrates but in our case there was mild to moderate lymphoid infiltrates.

Other rare differential diagnosis like Glioblastoma or Thornwald's cyst should also be kept in mind and should ideally be ruled out but if confusion persists then adequate caution be taken during the surgery.

Conclusion

Sphenochoanal polyp is a rare entity. Incomplete excision increases the risk of recurrence. Preoperative assessment with computed tomography of paranasal to look for the origin of the polyp and intraoperative application of proper endoscopic surgical techniques are invaluable in giving the best results to the patient and also to avoid unnecessary exploration of other sinuses. At the same time caution should be taken to note the attachement of the polyp which may be overlying the optic nerve or internal carotid artery in the lateral wall of sphenoid. Differential diagnosis of other masses in this area should also be kept in mind.

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