# Case Report

DOI: http://dx.doi.org/10.18203/issn.2454-5929.ijohns20174349

# Sphenochoanal polyp: a case report

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Received: 16 July 2017 Accepted: 30 August 2017

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#### **ABSTRACT**

Choanal polyp arising from the sphenoid sinus and presenting at the choana are rare. These are known as sphenochoanal polyp. We present a case of sphenochoanal polyp and its clinical features and surgical management is discussed. Our aim in this case was to properly delineate the origin of the polyp and differentiate it from other lesions such as the antrochoanal polyp and meningocele, followed by meticulous endoscopic excision of the polyp. Radiological investigations include a CT scan paranasal sinuses or a MRI diagnostic nasal endoscopy will confirm the diagnosis. Once the diagnosis is made surgical removal must be done.

Keywords: Nasal polyp, Sphenochoanal polyp, Sphenoid sinus

#### INTRODUCTION

Choanal polyp represents 3-6% of nasal polyps.<sup>1</sup> Sphenochoanal polyp is a benign solitary mass arising from the sphenoid sinus. Isolated polyps are originating from the anterior wall of the sphenoid sinus or from its interior and extending as choanal polyp into the nasopharynx are extremely rare.<sup>2</sup> Thus it has three components the intra sinusal, ostial and extra sinusal part. The patient mostly presents with a nasal obstruction with or without a headache. On anterior rhinoscopy polyp may be seen in the nasal cavity but details regarding the origin of the polyp can only be confirmed with computerized tomography of the paranasal sinuses and endoscopic nasal examination. The treatment includes endoscopic excision and enlargement of the sphenoid ostium. In this paper we have highlighted the salient features of sphenochoanal polyp and its diagnosis and treatment is discussed.

#### **CASE REPORT**

A 17 year old girl presented to our ENT outpatient department with right sided nasal obstruction and rhinorrhea. The patient was apparently alright 4 years

back when she noticed a gradually worsening right sided nasal obstruction. There was no history of any epistaxis, diminished vision and reduced or altered smell perception. On examination the external nose was normal. On anterior rhinoscopy there was a single polyp seen in the right nostril surrounded by mucopurulent discharge, the polyp was insensitive and did not bleed on touch. Rigid endoscopy showed a thin pale pink stalk arising medial to the middle turbinate from the sphenoid ostium. The maxillary sinus and ostium were clear. Computed tomography of the paranasal sinuses showed a well-defined homogenous opacity in the right sphenoid sinus and choana with minimal soft tissue shadow in the maxillary antrum and all other sinuses were clear. We planned an endoscopic excision of the polyp under general anaesthesia. The stalk of the polyp arising from the sphenoid sinus was excised and the entire polyp was delivered in toto through the oral cavity. The sphenoid ostium was widened and the sphenoid cavity on examination was clear without any remnants and any signs of bony erosion. The maxillary sinus ostium was also widened in the end and inspissated mucosal secretions from the sinus were cleared. Intranasal packing was done, pack was removed after 24 hours and the patient was discharged from the hospital. The postoperative histopathological examination of the specimen showed an inflammatory polyp without any signs of malignancy. On follow up the patient did not have any nasal complaints and was free of any recurrence.



Figure 1: CT scan showing isolated sphenochoanal polyp.



Figure 2: Diagnostic endoscopy showing isolated sphenochoanal polyp.



Figure 3: Specimen of sphenochoanal polyp.

#### DISCUSSION

They are of three types the antrochoanal, sphenochoanal and ethmoidochoanal polyps. Of these the antrochoanal is the most common variety and the other two are of much rare occurrence. Sphenochoanal polyp is one of the choanal polyp. There are other two forms of choanal polyps are antrochoanal polyp and ethmoidchoanal the later one being very rare.

Choanal polyps have not reported to origin from the frontal sinus.<sup>3</sup> Sphenochoanal polyps are extremely rare, and are therefore more likely to be missed in diagnosis.<sup>4</sup> They can be mistaken as an antrochoanal polyp if care is not taken to elucidate the origin of a choanal polyp.<sup>5</sup> Choanal polyps must not be assumed to be antrochoanal polyps until they have been proven to be so. It is difficult to distinguish a sphenochoanal polyp from an antrochoanal polyp clinically. Clinical presentation, endoscopic examination or biopsy are unreliable in making that distinction.<sup>6</sup> Both types of choanal polyp have an equal sex distribution. Both antrochoanal and sphenochoanal polyps most commonly present with unilateral nasal blockage, as in all our cases. Others may present with nasal discharge, facial pain, eustachian tube dysfunction, otological symptoms, snoring, chronic purulent nasal discharge or an oropharyngeal mass. Both types of polyps are indistinguishable histologically making it impossible to differentiate the two on that basis. The best way to distinguish an antrochoanal polyp from a sphenochoanal polyp is with the use of computed tomography or magnetic resonance imaging of the paranasal sinuses.8

Etiology of this choanal polyps still remains uncertain, earlier attempts to link it with IgE mediated allergic disorders does not hold true. It is suggested that choanal polyps arise from a precursor intramural cyst in the antrum or in the sphenoid sinus. Berg demonstrated similarities between the sinus component of the polyp and intramural cysts.6 All reported cases of sphenochoanal polyps have been solitary polyps. The management of sphenochoanal polyp is surgical. It includes endoscopic excision of the polyp and widening of the sphenoid ostium. Endoscopic technique helps in complete removal of the polyp from the sphenoid sinus through the widened sphenoid ostium. The enlargement of the sinus has to be taken in a medial and inferior direction. This helps in better intra and postoperative visualisation of the sphenoid sinus.

### **CONCLUSION**

Sphenochoanal polyp is a rare occurrence and needs to be properly distinguished from its more common counterpart, the antrochoanal polyp. A wrong diagnosis may lead to unnecessary exploration of the maxillary sinus and inadequate treatment of the sphenoid sinus thus leading to persistence and recurrence of the disease.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

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**Cite this article as:** Sandhu KS, Shiffali, Singh J. Sphenochoanal polyp: a case report. Int J Otorhinolaryngol Head Neck Surg 2017;3: 1130-2.