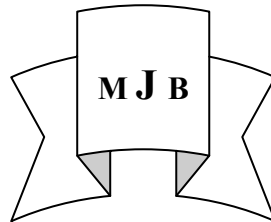


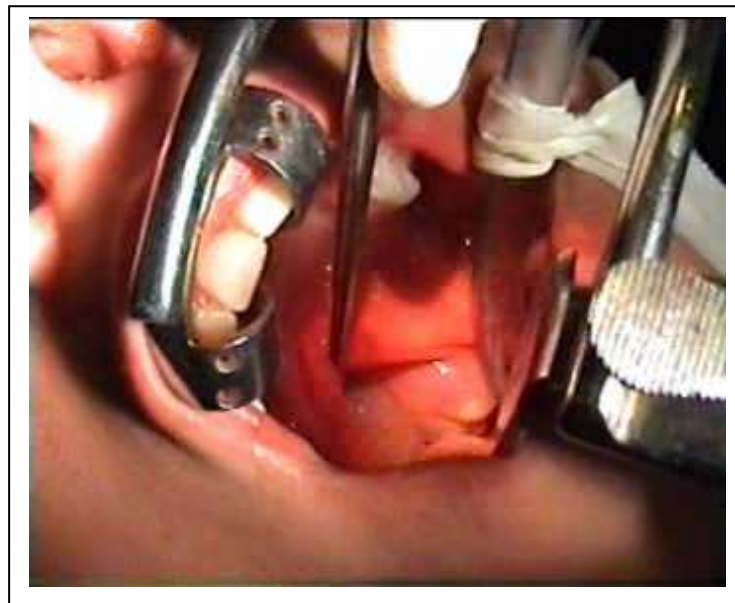
Antrochoanal Polyp with Unusual Presentation: A Case Report

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S.K is a 14-year old girl referred to ENT Department of our hospital from a primary health care unit as persistent tonsillitis in spite of several courses of antibiotics.

The patient complained chiefly of persistent throat discomfort difficulty in swallowing and feeling of a lump obstructing the throat for the last several months. The patient also suffered from nasal obstruction and rhinorrhea mainly of the left side.



Picture 1 The Antrochoanal polyp filling almost the nasopharynx and hanging into the oropharynx

On examination: anterior rhinoscopy showed mucoid secretion filling the left nasal cavity, careful suction of this secretion revealed a glistening white-grey polypoid mass, oropharyngeal and

postnasal mirror examination clearly showed that the polypoid mass passing through the left choana, filling about two-thirds of post-nasal space and hanging behind the soft palate into the

oropharynx . The tonsils, the ears and the neck were quite normal.

Plain x-ray of paranasal sinuses: soft tissue shadow obliterating the left nasal cavity, the left antrum totally opacified and the left ethmoid partially opaque. X-ray of postnasal space (lateral view): soft tissue shadow filling the space. The likely diagnostic hypothesis was left antrochoanal polyp.

Surgical treatment was decided by simple polyp avulsion. Under GA, with tonsillectomy position and mouth

gag in place. Antral wash out was found useful to facilitate gentle extraction of the whole polyp (antral, nasal and choanal parts) in one piece through oral cavity. A polyp of about 10 cm length was removed and sent for histopathology. Light anterior nasal packs placed and the patient had uneventful recovery.

The packs were removed 24 hours later and the patient was discharged.

The histopathological report referred to inflammatory polyp.



Picture 2 The Antrochoanal polyp delivered through the oral cavity



Picture 3 The surgical specimen of our case

The antrochoanal polyps show a much higher prevalence in pediatric population. Like benign nasal polyps they are more common in men than women. The onset is usually before 40 years although they may be found at all ages. The polyps tend to be dumb-bell in shape with a constriction where they pass through the ostium (or accessory ostium) of the sinus. They occur usually either from the left or right maxillary sinus, but may be bilateral rarely. Attempts have been made to define from where in the maxillary antrum they arise. The floor and lateral wall are common, although their site of origin frequently cannot be determined. The polyp is similar in color to the simple types being pale white or translucent in appearance[1].

Histology shows a respiratory epithelium over a normal basement membrane. The interstitium is grossly oedematous and the cellular infiltrate is similar to simple polyps except that there is no eosinophilia[1,2].

The patient, commonly a child or young adult, complains of unilateral nasal obstruction which is worse on expiration owing to the ball-valve like action of the polyp in the posterior choana. If sufficiently large, it may produce bilateral obstruction and cause otological symptoms as a result of Eustachian tube obstruction.

Anterior rhinoscopy may look normal as only the thin stalk may present in the nose. The enlarged posterior end may be seen on posterior rhinoscopy and rarely the polyp attains larger size (as in our case) and easily seen by simple oropharyngeal examination pushing the soft palate forwards and hanging behind it into the oropharynx. All suspected cases should have proper endoscopic examination [2] which is not available yet in our department although it is essential in any ENT unit for the last decades.

typically unilateral and commences as oedematous lining from the maxillary sinus. This lining prolapses through the ostium into the nasal cavity and enlarges towards the posterior choana and nasopharynx [2]. The aetiology is unknown. They are not associated with allergy, lower respiratory tract disease or sinusitis.

These polyps are rare and probably occur in all racial groups. They represent 4-6% of all nasal polyps in the general population. However, the differential diagnosis in any child with unilateral nasal obstruction and an ipsilateral nasal mass should include juvenile nasopharyngeal angiofibroma, nasal glioma, encephalocele, mucocoele, retention cyst, grossly enlarged adenoids, inverted papilloma, or nasopharyngeal malignancies[3]. Careful history taking, evaluation with endoscope, and radiographic examinations are helpful in treatment planning in these patients.

A CT scan is the best investigation, but plain sinus radiographs may show mucosal thickening or a completely opaque antrum. The sinuses are almost never normal on the affected side. The lateral view may show the polyp in the postnasal space [2,1]. In a CT scan of the paranasal sinuses, a nasal mass with complete opacification of the ipsilateral maxillary antrum and widening of the sinus opening is either an inverted papilloma or antrochoanal polyp. However, fungal infection of the maxillary antrum should be considered in the differential diagnosis [4].

There is no medical treatment either preoperatively or postoperatively. Since 1906, when Killian first described the maxillary sinus as the site of origin for the polyp, many surgical techniques have been proposed. In order to reduce the post operative recurrence, it is paramount

to completely remove the antral portion of the polyp, close to its base of origin [5]. Such surgical techniques are :

Simple avulsion: most surgeon are conservative in management of patients less than 18 years of age because of developing teeth ,so this technique is more appropriate though with high chance of recurrence .

Caldwell-Luc technique: used more frequently in the past. It offers good exposure and ensures complete removal of the polyp and associated antral mucosa.

It is necessary to remove both parts of the polyp. There had been debate on the best method of removal of the polyp. The approach was dictated by the age of the patient. Simple polypectomy may result in recurrence[6]. Many patients are young and dentition is incomplete so that the more aggressive surgical approaches (Caldwell-Luc , for instance) should be avoided , as this can cause facial asymmetry [5]. An antral wash out may produce straw-colored fluid and should be performed since it may help in dissection of the antral mucosa if simple polypectomy is performed[6].

Functional endoscopic sinus surgery (FESS): The introduction of endoscopes in sinus surgery has brought about a revolution in the approach of surgery of the paranasal sinuses. This technical achievement has been critical in the evolution of a functional philosophy of sinus surgery. The goal is to return the chronically inflamed nose and paranasal sinuses to a normal functioning state through conservative surgery rather than completely exenterating the nasal and sinus cavity[7]. At present, FESS is the gold standard technique[8], and the endoscopic removal of antrochoanal polyp has become the surgical approach of choice. It is less harmful

for children and has short recovery time. It is generally recommended that the antral portion of the antrochoanal polyp should be removed along with the base to reduce the chance of recurrence[9]. Endoscopy approaches are replacing rapidly the traditional procedures like simple polypectomy and Caldwell-Luc operation

From this case we may conclude that Antrochoanal polyp may present chiefly in the throat as discomfort, dysphagia and feeling of a lump obstructing the throat. The treatment of antrochoanal polyp is only surgical and Endoscopic approach as compared to previous modalities of treatment is safe and has the capability to ensure complete removal of antrochoanal polyp and decrease its rate of recurrence.

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Note

Pictures: (1), (2) and (3) are taken to our patient during the operation.