

Giant inverted papilloma presenting as antrochoanal polyp-a case report.

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Citation

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Abstract

Inverted Papilloma is a benign sinonasal tumor which generates considerable interest because they can recur and undergo malignant transformation. We report a case of giant inverted papilloma coming out of nasal cavity through the nasopharynx and hanging in oropharynx which was treated by transnasal endoscopic approach. The patient was asymptomatic 9 months after surgery. Endoscopic approach has a good surgical outcome in inverted papilloma. Endoscopic technique has the advantage of less postoperative morbidity and also gives an advantage for second surgery by the external approach should a recurrence occur.

INTRODUCTION

Inverted Papilloma is considered as the most common benign sinonasal tumor and it has a characteristic of aggressive local invasion, high incidence of recurrence and transformation into squamous cell carcinoma. The incidence is between 0.5 to 4 %¹. It usually arises from the lateral wall of the nose (about 90 % of cases) and in small percentage of cases it does arise from the septum. Of all the paranasal sinuses, maxillary sinus is commonly involved; followed by ethmoid sinus, sphenoid sinus and frontal sinus¹. In the majority of the cases, unilateral nasal obstruction is the main presenting complaint. Other symptoms include epistaxis, rhinorrhea, facial discomfort, and headache and hearing impairment.

Due to its aggressiveness and tendency for local recurrence, most authors agreed that external approach which provides good exposure for tumor clearance is the gold standard treatment¹. However since 15 to 20 years back, with the advancement of technologies and better imaging technique reasonable clearance of the tumor can also be achieved by a less cumbersome endoscopic approach. Since then many cases were reported including small and large series regarding the effectiveness of an endoscopic approach even though some still advocate the traditional technique^{1,2,3}.

CASE REPORT

A 54 year old male presented to us with the chief complaints of bilateral nasal obstruction and nasal discharge of 2 ½

years duration. Initially, the nasal obstruction on the right side which progressed to become bilateral. There was no history of proptosis and vision impairment. There was no history suggestive of raised intracranial tension. The past history revealed history of surgery for similar complaints 4 years ago but the histopathology report was not available. On local examination showed a pinkish mass in the right side nasal cavity and on posterior rhinoscopic examination revealed a pale pinkish mass in bilateral choana, nasopharynx and hanging into the oropharynx (Fig-1).

Figure 1

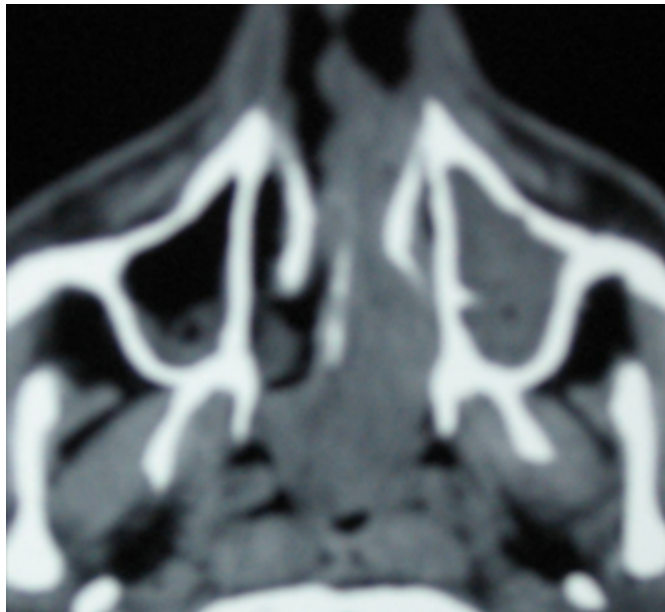
Figure-1. Intra-oral photographs showing pinkish mass in the oropharynx hanging behind the soft palate



The general physical examination and chest X-ray was normal. The patient underwent CT scan of nose, paranasal sinuses and orbit which revealed soft tissue shadow involving the right side nasal cavity, maxillary sinus anterior and posterior ethmoids, choana, nasopharynx and oropharynx (Fig-2).

Figure 2

Figure-2. Computerized tomography, axial section showing the tumor in right nasal cavity, maxillary sinus and going to nasopharynx



So a provisional diagnosis of antrochoanal polyp was made. The case underwent transnasal endoscopic approach. The excised specimen sent for histopathological examination which confirmed the diagnosis of inverted papilloma. The post-operative period was uneventful. The patient was asymptomatic 9 months after surgery with no evidence of recurrence.

DISCUSSION

Sinonasal papilloma is defined as benign epithelial tumor composed of well differentiated columnar or ciliated respiratory epithelium with variable squamous differentiation⁴. Histologically it can be divided into exophytic or fungiform papilloma, columnar cell papilloma and inverted papilloma. The latter displays a pattern of growth towards the underlying stroma without breaching of the basement membrane.

The incidence ranges from 0.5 % to 4 % of all primary nasal tumors and it is prevalent in the fifth and sixth decades of life¹. Males are 4 to 5 times more common to be affected

than females. The most common presenting complaint was nasal obstruction (50%), nasal discharge (20.8%), epistaxis (16.6 %) and 4.2% of the patient presented with frontal sinusitis⁵. Lateral nasal wall and middle turbinate are commonly involved by inverted papilloma in 93% of cases¹. Of all the paranasal sinuses, maxillary sinus is the most common to be affected by the tumor which is 48% of the cases followed by ethmoid sinus (46%), sphenoid sinus (12%) and 8% for frontal sinus¹.

As proposed by Krouse in year 2000⁶, inverted papilloma can be divided into 4 different stages. In stage I, the tumor is confined to the nasal cavity with no evidence of malignancy. In stage II, the tumor involves the osteomeatal complex, ethmoids and or medial wall of maxillary sinus without any evidence of malignancy. In stage III, the tumor involves the inferior, superior, lateral or anterior wall of maxillary sinus, sphenoid and or frontal sinus without evidence of malignancy. Finally in stage IV, the tumor extends beyond the nasal cavity or paranasal sinuses or the tumor is associated with malignancy. Based on this staging method, in our present series there were 45% (5 patients) for stage II, 36% (4 patients) for stage III and 18 % (2 patients) for stage IV.

CT scan is the radiological investigation of choice in the majority of cases, although MRI may be more superior in delineating the surrounding soft tissue involvement. MRI is also valuable in differentiating between a tumor and sinusitis. These radiological evidences are very important in determining the approach and also to provide a guide during surgery.

The surgical management of inverted papilloma has evolved over the years. A previously famous facial incision (lateral rhinotomy), extensive nasal packing and prolonged hospital stay have been replaced by a more conservative, less morbid and cost effective endoscopic surgery. Although, external approach gives an adequate exposure of the entire sinonasal complex for tumor clearance, advancement in imaging technique and endoscopic instruments resulted in the endoscopic approach being the preferred method of treatment in inverted papilloma. It not only reduces the morbidity but at the same time have a recurrence rate if not better is comparable with the conventional method.

However, one should bear in mind that all these are strictly based on case selection. Some authors prefer an endoscopic approach for early stage of inverted papilloma but some still managing advanced stage inverted papilloma endoscopically

and reserve external approach for recurrent tumor. With the advanced in endoscopic and powered instruments along with better illumination, there are authors treating recurrent inverted papilloma endoscopically with reasonable outcome⁷.

The morbidities that may be associated with an external approach with lateral rhinotomy incision are epiphora, chronic dacryocystitis, transient diplopia and eustachian tube dysfunction. Other external approaches such as midfacial degloving, septal translocation and Roux-denker's operation even though have no external scarring, the morbidity is still high. Due to this, the quality of life of those patients who had external approaches is expected to be lower than those who had an endoscopic approach.

The choice of treatment was mainly surgeon preferences as one preferred an external approach while the other preferred the endoscopic technique. Long term follow up is crucial as recurrence may be associated with incidence of malignancy

1. It is mandatory to prospectively follow the patients every 3 months during the first postoperative year and

subsequently every 6 months for at least 4 years⁸.

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