

Antro-Choanal Polyp: Could it be an Inverted Papilloma?

M Abo-Khatwa, A Eweiss, S Healy, Z Hammad

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Abstract

Objective: We report a rare case of antro-choanal polyp turned out to be an inverted papilloma.

Method: A female patient presented with an antro-choanal polyp appearing in the oropharynx. The histology was inverted papilloma. The world literature review revealed only four cases have been reported. We discuss the clinical picture, as well as the radiological and histological finding of this rare case.

Conclusion: This aim of this article is to draw the attention that the simple appearance of an antro-choanal polyp can hide a sinister pathology.

INTRODUCTION

Antro-choanal polyp is one of the uncommon nasal polypi. It is believed to originate from the antral mucosa to the maxillary ostium; its direction of growth being posteriorly toward the choana and appearing in the oropharynx.

^{1,2,3,4,5,6,7} Conversely however,, inverted papilloma is one of the commonest nasal tumours. ⁹ The pathology of the antrochoanal polyp is thought to be an intramural cyst arising from the antral mucosa toward the maxillary ostium. ⁸

In this case report, we report a rare case of an antro-choanal polyp turned out to be an inverted papilloma. The histology, clinical picture as well as the radiological findings will be discussed. ^{10,11,12} Literature review revealed only four cases have been reported. ^{13,14}

CASE REPORT

A 45-year-old female Caucasian, was referred to our department from her General Practitioner with a two day history of globus pharyngeous sensation and a five week history of bilateral nasal blockage. This lady smoked 15 cigarettes a day and her past medical history included left mastectomy and radiotherapy for breast cancer.

Throat examination revealed a large polypoidal mass in the oropharynx hanging down from the nasopharynx (Fig.1).

Figure 1

Figure 1: The antro-choanal polyp hanging from the nasopharynx to the oropharynx.



Flexible nasendoscopy showed a large left antrochoanal polyp arising from the left middle meatus.

CT scan of the paranasal sinuses showed large dense soft tissue material occupying the whole of the left antrum extending into the ethmoids (Fig. 2).

Figure 2

Figure 2: CT scan of the paranasal sinuses revealing soft tissue density material occupying the whole of the left antrum extending into the ethmoids.



The mass extended posteriorly to the nasopharynx and also crossed the midline. There was disruption of the normal bony architecture of the ethmoids, which is consistent with chronic infection or secondary pressure effect from the soft tissue thickening.

The patient was listed for endoscopic polypectomy in order to establish a histological diagnosis. The surgical procedure itself confirmed the presence of a large antro-choanal polyp extending from the left middle meatus posteriorly to the nasopharynx through the posterior choana. It was noted that there were irregularities on the surface of the polyp over the antral segment, (Fig.3).

Figure 3

Figure 3: The excised antro-choanal polyp showing irregularities (inverted papilloma) in the antral part.

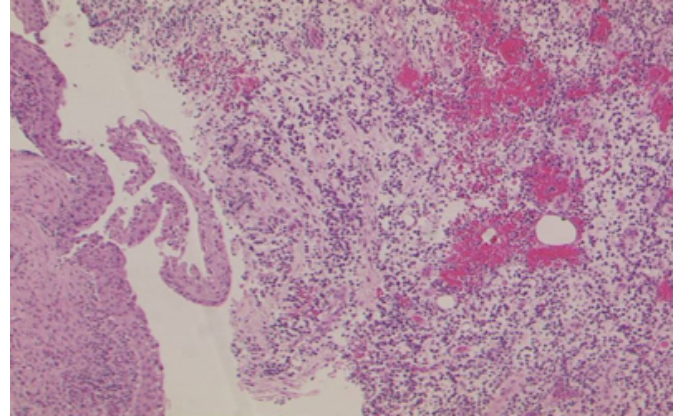


The mass was sent for urgent histological investigation and

the report revealed presence of inverted papillary epithelium in the connective tissue stroma (inverted papilloma), (Fig.4).

Figure 4

Figure 4: Inverted papillary epithelium (transitional type) into the connective tissue stroma (H&E; x100)



Four weeks later, the patient had an examination of her nose in the outpatient department, using a zero degree rigid endoscope. Papilloma remnants were visible on the lateral nasal wall as well as on the middle turbinate.

Six weeks later, the patient was admitted for further surgery and underwent lateral rhinotomy, external ethmoidectomy and medial maxillectomy. Post-operatively the patient complained of transient diplopia on right lateral gaze. However, this resolved within weeks. Regular review for the following twelve months showed no evidence of recurrence of the inverted papilloma.

DISCUSSION

Antrochoanal polyp is a solitary polyp arising from the posterior edge of the maxillary ostium and protruding in a backward direction to the choana and the nasopharynx, as described by Killian (1906).¹ Kubo (1909) indicated that the site of origin is the mucosal lining of the maxillary sinus,² and this has also been confirmed by others.^{3,4,5,6,7} Berg (1988) studied fifteen cases of antrochoanal polyp in three years, his study concluding that the antrochoanal polyp develops from the expanding intramural cyst protruding through the maxillary ostium and into the nasal cavity.⁸

Inverted papilloma is itself, one of the commonest benign tumours of the nose and the paranasal sinuses. It usually originates from the lateral nasal wall, particularly in the middle meatal area. The majority of such tumours initially present as a nasal cavity mass, and spread into the maxillary antrum.⁹

Macroscopically, inverted papilloma looks like an ordinary or slightly fleshy lobulated nasal polyp. Microscopically however, it is characterised by the inversion of the surface epithelium into the underlying stroma. ¹⁰

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. ¹¹ MRI scan has a role in identifying the extent of inverted papilloma, rather than making a diagnosis. T2 weighted MRI scan is very accurate in differentiating papilloma (intermediate signals) from adjacent inflammatory tissue (very high signals). ¹²

A review of the literature showed that only four cases of antrochoanal polypi were actually reported to be inverted papilloma. Lopatine et al (1997) reported two cases of inverted papilloma in twenty patients with antrochoanal polyp. ¹³ Lopatine assumed that considerable metaplasia of the epithelial layer is the possible cause of this effect. Haque et al (2004) reported another two cases of inverted papilloma in fifty-three patients with antrochoanal polyp. ¹⁴

Our patient had an uneventful recovery with the exception of transient diplopia on right lateral gaze, which spontaneously resolved within weeks. Regular review for the ensuing year showed no evidence of recurrence of the inverted papilloma.

SUMMARY

- This case report describes an antro-choanal polyp, which turned out to be an inverted papilloma.
- A review of the literature revealed that only four cases have been reported.
- The clinical picture, histological and radiological findings have been discussed.
- The patient outcome and review process have been

described.

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Author Information

Mohamed M. Abo-Khatwa, FRCS

ENT Department, Glan Clwyd Hospital

Ahmed Eweiss, FRCS

ENT Department, Glan Clwyd Hospital

Sarah Healy, MRCS

ENT Department, Glan Clwyd Hospital

Zaki Hammad, FRCS

ENT Department, Glan Clwyd Hospital