Inverted Papilloma - An Unusual Presentation (Foreign-Body Like)

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Abstract

Inverted papilloma of the nose is an uncommon, but, well documented lesion of the mucosal lining of the nose and paranasal sinuses. The manifestations of this disease are usually unilateral nasal obstruction, mucopurulent nasal discharge, anosmia and occasional headache. It is very rare to see this condition presenting with dyspnoea and dysphagia due to its extension in the laryngopharynx. In this paper, we report a patient who presented to us with dyspnoea and dysphagia due to a huge papillomatous mass extending from right nasal cavity to the maxillary antrum laterally, posteriorly into the nasopharynx, inferiorly into the oropharynx and the laryngopharynx.

The earliest description of the nasal papilloma was by Billroth (1855). The inverted papilloma, though uncommon, is seen commonly in the nasal cavities and usually arises from the lateral wall of the nose. These are lesions of unique histological appearance and must be distinguished from other papillomas and polyps of the nose. This distinction is mandatory because they alone can undergo a malignant change (Fechner and Alford, 1968). It commonly involves the maxillary and ethmoidal sinuses, frontal and sphenoidal sinuses are less frequently involved and rarely orbital involvement is also known to occur. Its presentation as a cause of dyspnoea and dysphagia in a patient, is virtually unknown.

Case Report

A fifty year old male patient came to our Department with a history of dyspnoea and dysphagia which progressively increased over a period of four months. Since he lived in a rural village, he had no access to a qualified medical professional and was under the treatment of his village-doctor for unilateral nasal obstruction and discharge since the past one year. The bouts of dyspnoea with occasional cough and suffocation increased when he was sitting or standing (upright position) and reduced on lying down. He had no associated complaints of epistaxis, eye symptoms,

loose teeth, fever or anosmia. He, however, complained of occasional dull headache.

On examination of the nasal cavities, a pale papillomatous mass was seen, completely occluding the right nasal cavity. It did not bleed on probing and

Fig. 1 : CT Scan of skull lateral view showing a soft tissue density mass (inverted papilloma) in the nasopharynx and extending into the laryngopharynx.

was nontender. The nasal septum was deviated to the left. The oral hygiene was poor and the patient had halitosis. The mass was seen hanging in the oropharynx with its lower end resting in the laryngopharynx. Examination of the ears revealed no pathology. A CT scan plain and contrast, of the paranasal sinuses, nose and nasopharynx revealed a soft tissue density mass involving the entire right nasal cavity and extending to the right maxillary sinus with erosion of its medial wall, the nasopharynx, oropharynx and laryngopharynx. The mass did not show enhancement on contrast CT scan (Fig. 1, 2, 3).

A punch biopsy was taken from the mass and sent for histopathological examination which was reported as

general anaesthesia where an orotracheal intubation was done after carefully pushing the mass to one side. The entire mass was removed via a Caldwell Luc approach, the lateral nasal wall was eroded almost along its entire extent except in the anteriormost portion. The blood loss was approximately 600 ml and the mass was distinctly papillomatous and about 15 cms x 4 cms in dimensions (Fig. 4). Anterior and posterior nasal packing was done to achieve haemostasis.

The mass was sent for histopathological examination which revealed features consistent with inverted papilloma i.e. a surface lined with benign ciliated columnar epithelium which inverted into the

Fig. 2 : Contrast CT scan of the nose and paranasal sinuses axial view showing inverted papilloma in the nasal cavity, nasopharynx, maxillary sinus and oropharynx. Note erosion of posterior aspect of medial wall of right maxilla.

"inverted papilloma". The haematological investigations were : Haemoglobin 13.5 gm%, Total WBC count 7,500/ cmm, Differential WBC Count—lymphocytes 48%, Polymorphs 50%, Eosinophils 02%, BUN 11 mg%, Blood sugar (Fasting) 90%, Total Proteins 5.3 gm%, Albumin 2.7 gm%, Total bilirubin 0.4%, SGOT 16, SGPT 08, S. creatine 0.5, S. Na 143 mEq/it, S. K. 4.1 mEq/it., S. Cl 102 mEq/lit.

The patient was immediately taken for surgery under

Fig. 3 : Contrast CT scan axial view showing the inverted papilloma in the laryngopharynx.

underlying stroma but exhibited a distinct basement membrane that defined it from the underlying connective tissue stroma which showed the presence of abundant cystic spaces which are the inclusions of mucus and cellular debris (Fig. 5).

The postoperative recovery was uneventful and subsequent follow-up revealed no evidence of a recurrence. The patient was kept on 1000 mg of oral Tetracycline daily in four divided doses for two weeks.

Discussion

The inverted papilloma is a nasal lesion long

associated with controversy. The long list of names applied to it attest to the confusion concerning its basic nature. While its pathogenesis remains uncertain, its neoplastic character and natural history have been well defined. Its tendency towards recurrence and its association with malignancy have been established in numerous clinical studies.

The earliest reference to a papilloma of the nasal cavities was that of Ward (1964). Billroth in 1855, described the histopathology of papilloma in detail. Since then, a considerable variety of synonyms have been applied to this lesion : Kramer and Som (1935) introduced the term 'true papilloma of the nasal cavity'; 'cylindrical' or 'transitional cell papilloma' was the term used by Ringertz (1938) ; 'transitional cell papilloma' was the term also used by Osborn (1956); it was called 'inverting papilloma' by Norris (1963); and the term 'inverted papilloma' was used by

Fig 4 Gross appearance of the inverted papilloma, following surgical removal showing the nasal, nasopharyngeal, antral and laryngopharyngeal parts.

Lampertico, Russel and MacComb (1963). Oberman (1964), Fechner and Alford (1968) and Hyams (1971). In his description of the development of these tumours, Ringertz (1938) used the term 'inverted' as being synonymous with infolding (Friedman and Osborn, 1982).

This is an uncommon benign tumour involving the mucous membranes of the nasal cavities and the paranasal sinuses. It is approximately 1/25th as frequent as the ordinary nasal polyp (Snyder and Perzin 1972). It has been reported to arise in ages after adolescence with a peak incidence in the fifth and sixth decades. In virtually all series there is a predominance of males over females in the ratio of 3 : 1 (Lawson et al, 1983). The inverted papilloma generally arises from the lateral nasal wall, usually in relation to the middle meatus and the middle turbinate. Occasionally, it arises from the inferior turbinate, inferior meatus or the nasal vestibule. There have also been reports of the inverted papilloma occurring on the nasal septum (Bradford et al, 1972 and Kelly et al, 1980). In a great majority, the sinuses are involved secondarily following primary nasal involvement (Lawson et al, 1983).

In light of the natural history of the lesion, the basic problem facing the clinician is what constitutes adequate treatment. The management of the inverted papilloma is based upon its clinical features. This includes origin within the nasal cavity and extension into the paranasal sinuses, a high rate of recurrence, an association with malignancy and a tendency to multicentricity. Clinical evaluation is unreliable

Fig 5 H & E 10 X characteristic histopathological appearance of inverted papilloma showing a benign ciliated columnar epithelial lining which is inverted into the underlying stroma but exhibits a distinct basement membrane.

because the signs and symptoms are non-specific, the tumour tends to be bulky and does not permit accurate determination of its point of origin. Also on merely a clinical examination the extent of paranasal sinus involvement cannot be assessed. Multiple biopsies taken from different sites are necessary to establish the

correct diagnosis. Inflammatory polyps often surround the papilloma and may cause an erroneous diagnosis on superficial biopsy. A malignancy may also be concurrently present. Most of the cases of recurrence are due to incomplete removal.

Conclusion

Inverted papilloma of the nose is known to be rare, but, rarer still is an inverted papilloma so huge that it causes dyspnoea and dysphagia-symptoms like foreign body. Also, in spite of its huge size, there were no grave complications such as orbital involvement, or malignant change as confirmed by histopathology of

various sections of the mass. Also, a follow-up after surgery revealed no evidence of a recurrence. In this patient, the dyspnoea is attributed to the irritation caused to the larynx by the huge mass which was hanging loose and fell into the laryngopharynx when the patient was in the upright position. Dysphagia was due to the sheer volume of the huge mass in the oropharynx and laryngopharynx.

Acknowledgement

We are grateful to our Dean Dr. (Mrs.) K. D. Nihalani for granting permission to publish this article.

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