Ameloblastoma: A Rare Nasal Polyp

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Received: 15 November 2008 / Accepted: 28 March 2009 / Published online: 16 April 2011
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Abstract Ameloblastomas are locally aggressive jaw tumours with a high propensity for recurrence and are believed to be derived from remnants of odontogenic epithelium which does not undergo transformation to the point of enamel formation. Extragnathic ameloblastomas are unusual and primary nasal origin is extraordinarily uncommon.

Keywords Odontogenic tumor · Ameloblastomas · Nasal cavity

Introduction

Ameloblastomas are most frequent odontogenic tumors accounting for 1% of all tumours of the maxilla and mandible. Incidence is higher in males than in females. There are no differences in races. We report an unusual primary nasal ameloblastoma in a 19-year-old boy. The tumour presents as a radiographically solid mass filling the left nasal cavity and without connectivity with maxillary alveola. The paper reviews the clinicopathological features of this rare tumour and supports the theory of its nasal epithelial origin.

Case Report

A 19 year old male was admitted in the hospital on May 2008 with chief complaints of gradually increasing unilateral nasal obstruction on left side for the last 3 months, rhinorrhoea for the last 3 months and recurrent bleeding from left side of nose for the last 1 month.

Examination of Nose

Anterior Rhinoscopy

A red, irregular, firm sessile mass obstructing the entire left nasal cavity (Fig. 1). Due to excessive bleeding on probing, pedicle of the mass could not be identified.

Posterior Rhinoscopy

Pinkish irregular mass obstructing the left posterior nare was seen

X-ray of paranasal sinus (water's view): There was opacity in left nasal cavity. There was no evidence of bone destruction (Fig. 2).

The provisional diagnosis of nasopharyngeal angiofibroma was made and the patient was planned for external carotid artery embolization and trans-palatal removal of mass. But under general anesthesia, on endoscopic examination, it was found that the mass was arising from sphenopalatine foramen region and posterior end of middle turbinate. It was removed endoscopically along with posterior end of middle turbinate via nasal route. Anterior and posterior nasal packing was done. Haemostasis was achieved. Tissue was sent for histopathological examination. [1–5].

Histopathology report of the biopsy material proved it “Ameloblastoma” (Fig. 3). The patient is on regular follow up.

Discussion

Ameloblastoma is histologically benign but locally aggressive tumor with a marked tendency for recurrence. They are classified into four groups—unicystic, multicystic, peripheral

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Fig. 1 Photograph of the patient showing mass in left nasal cavity

Fig. 2 X-ray paranasal sinus water's view showing opacity in left nasal cavity and maxillary antrum

and malignant. In rare instances, it has been known to act in malignant fashion. Radiographic findings are not pathognomic. As ameloblastomas are relatively resistant to chemotherapy or radiotherapy, the mainstay of therapy is surgical excision with adequate margins. Simple curettage is associated with unacceptable recurrence rates. If necessary, experienced plastic and reconstructive surgeons can help in reconstruction of function and appearance. Recurrence depends upon several factors as (1) method of treatment of primary lesion. (2) the extent of lesion. (3) site of origin. Among the various types of ameloblastoma, there are

Fig. 3 Photomicrograph of the excised mass showing epithelial nests and follicular degeneration

differences in recurrence patterns. Multicystic ameloblastoma has a much higher rate of recurrence than unicystic ameloblastoma. It is believed that the reason for this is the numerous micro extensions the tumor has projected into the bone. Recurrence rate also varies for the different procedures used to treat the primary lesion. This case report illustrates the importance of adequate radical resection to avoid recurrence. All efforts must be made to excise the recurrent lesion because death can occur as a result of damage to vital structures by massive local disease and metastasis. Recurrence often presents after 15 years or more. Therefore, it is important to emphasize the need for long term periodic follow ups. Only two cases of nasal ameloblastoma have been published till now in medical literature. The first case was published in the *Journal of Laryngology and Otology*, vol. 102, issue 06, Jun 1988, pp 530–33 by D. G. Keay, M. Small, A. I. G. Kerr, K. Maclaren and the second case was published by Bray D, Michael A, Falloner DT, Kaddour HS in *The Journal of Laryngology and Otology* 2007, vol 121, no 1, pp 72–75. That's why, this case is being reported here and the unusual presenting symptoms, as well as the highly destructive nature of these lesions, make them worthy of consideration in the differential diagnosis of nasal masses.

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