

**Research Article**

## AN UNUSUAL CASE OF CHONDROMA OF NASAL SEPTUM

Shaila Bangad, Surabhi Chopra, Y.U Kelgaonkar, Sham S. Somani and Sachin B Ingle

Department of ENT and Pathology MIMSR Medical College, Latur

\*Author for Correspondence

### ABSTRACT

The cartilaginous tumours of nasal septum are very rare and almost arise from the posterior part. Considering the very rare occurrence of chondroma arising from anterior part of the septum, we report such a case. The tumour was well defined, homogenous in appearance and was excised by lateral rhinotomy approach. The least accepted traumatic etiology seems to be most appropriate for oncogenesis in this case. This report also reviews the relevant literature.

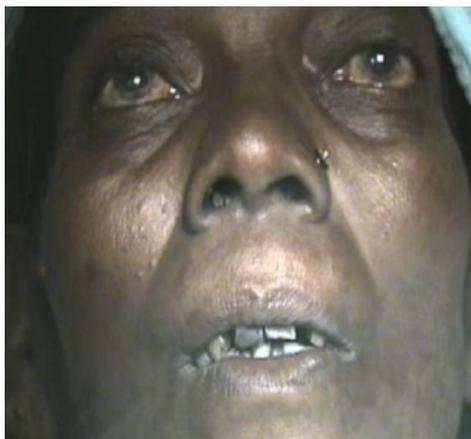
**Key Words:** Chondroma and Nasal Septum

### INTRODUCTION

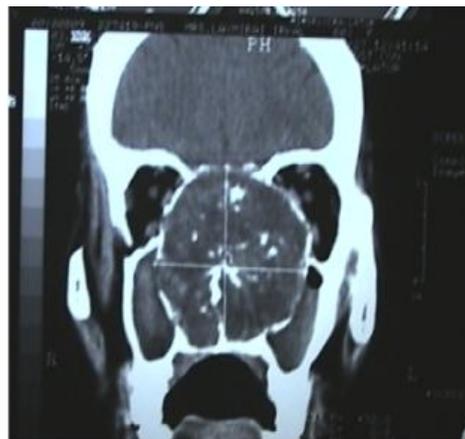
Cartilagenous tumours of nose are extremely rare. Kuruzomi and Kamiishi (1984) found only 131 cases of nasal chondroma in their extensive search from 1842 onwards. In a review of literature Kilby et al (1977) found 50% to originate from ethmoids and just 17% from the septum. Only 19 cases of chondroma arising from the nasal septum have been reported till date and that too almost always originate from the posterior part. Considering the rarity we report a solitary chondroma of nasal septum with its origin from anterior (cartilaginous) part. These chondrogenic tumours usually show an aggressive behaviour. The treatment of choice is wide surgical excision.

### CASES

A 70 year old female presented with bilateral nasal obstruction of 6 months duration with headache, bilateral epiphora and proptosis of left eyelid (Figure 1). Clinical examination revealed a smooth, firm; nontender, pinkish grey mass in the anterior part of the nasal cavity pushing the anterior margin of septum to extreme right. The mass was soft and did not bleed on probing. Bilateral maxillary and frontal sinus tenderness was present. No cervical lymphadenopathy was noted. CT scanning revealed large, well defined, soft tissue density mass in midline of nasal cavity causing destruction of nasal septum, medial walls of both maxillary antrum and anteromedial wall of orbit (Figure 2).



**Figure 1: Image of patient**



**Figure 2: CT scan image**

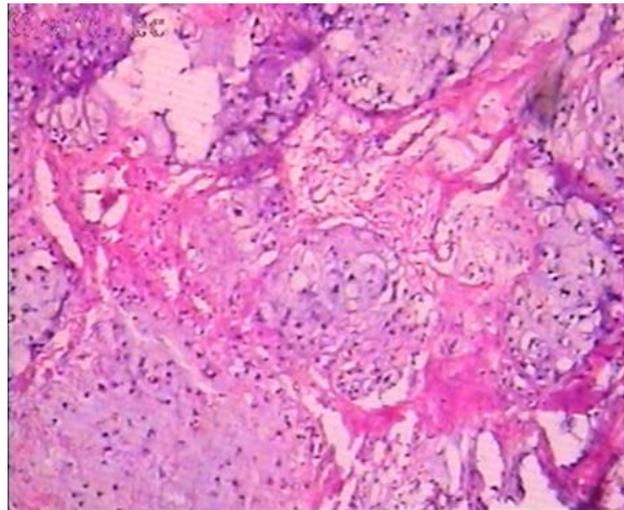
The mass showed extension into ethmoids, frontal and maxillary sinuses. The mass was approached by left lateral rhinotomy. The papery thin left nasal bone was elevated along with the skin. This revealed

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firm to hard mass arising from septum and extending laterally into ethmoids and lamina paperecia while superiorly along the undersurface of cribriform plate (Figure 3).



**Figure 3: Operative photographs**



**Figure 4: Microscopy showing chondroma**

It was well circumscribed and shelled out easily. The postoperative period was uneventful except for two episodes of minor bleeding during routine dressings. The patient did not reveal any recurrence after 6 months. Grossly the cut surface of tumour was homogenously greyish and felt uniformly hard on cutting. It measured about 5 cms in maximum diameter. A histopathological diagnosis of chondroma was made as it revealed homogenous cartilaginous material with chondrocytes of variable sizes (Figure 4).

### DISCUSSION

The nasal chondroma is usually seen as slow growing , firm to hard nasal mass but may even present with severe epistaxis. It is a rare neoplasm. Approximately 60 % of tumour occurs in patients less than 50 years of age (Som 1991). No sex predilection exists. Those arising from the nasal septum are midline. They usually are well circumscribed and appear fairly homogenous on CT. They tend to be expansile lesions that remodel bone. They do not provoke sclerotic bone at their margins. Calcification of chondroid matrix occurs rarely (Murthy 2001). The diagnosis of nasal chondroma is based on combination of clinical, radiologic and pathologic findings. When diagnosis is doubtful, MRI may be undertaken where a chondroma exhibits higher signal intensity on T2W1 (Ruark 2002).

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The most accepted concept in oncogenesis of nasal chondroma is the 'cell rest theory' which may explain chondrogenesis from paranasal sinuses, turbinate, hard palate or septum. Klaue and Kilby et al have strongly condemned the role of accidental trauma in etiopathogenesis as chondroma invariably occurs deep in the nasal cavity.

Wide open excision is the treatment of choice. A lateral rhinotomy approach is usually preferred, local excision is sufficient for small tumours. For a large chondroma arising from anterior cartilaginous septum a lateral rhinotomy is most preferable. Not only wide excision is possible but also the involvement of adjacent structures such as paranasal sinuses, orbit can be assessed. Intraoperative frozen section biopsy can conclude a tumour free margin as well (Fu 1994).

A chondrosarcoma grows slowly and never metastasizes. It is moderately radiosensitive, a post-operative radiotherapy should always be considered in presence of sarcomatous changes (Peterson 2004). Recurrence after radical excision is unknown. This may be due to paucity of clinical data on this rare condition or due to a comparatively lesser complex anatomy anteriorly where the potential for involving vital structures is less and tumour can be accessed completely for radical excision (V Anand 1999).

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