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Myxoma of the nasal bone

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ABSTRACT

Myxoma is a benign tumor that arises from mesenchymal tissue, and found in the soft tissue and less commonly in the bone. The majority of bony myxomas of the head and neck occur in the jaws and maxilla. We report an extremely rare case of nasal bone myxoma in a 52-year-old man. The diagnosis was confirmed by biopsy. Due to the aggressive nature of the lesion the nasal bone was eroded by the disease. The patient underwent resection of the mass with reconstruction of the defect by septal cartilage. The patient remains tumor free after 5 years.

1. Introduction

Myxoma is a benign, slow-growing, locally invasive mesenchymal neoplasm that mostly involves the heart and other soft tissues, rarely bones. The bony involvement is almost exclusively in the facial skeleton and odontogenic, and most frequently manifests as a slow-growing palatal or facial swelling. This tumor generally occurs in adolescents; it is uncommon in adults and rare in children. Zimmerman and Dahlin [1], in 1958 found only 26 osseous myxomas in a review of 2276 primary bone tumors from any age group. All 26 cases were found in the facial skeleton, 15 of them affecting the maxilla. In a review of 8723 primary bone tumors, Ghosh et al. [2] found only 10 osseous myxomas, 6 in the mandible and 4 in the maxilla. The rarity of these tumors outside the maxillofacial region was confirmed by McClure et al. [3], who reported the only three cases of myxoma in the femur in a series of over 11,000 primary bone tumors in the files of the Mayo Clinic, Rochester, Minnesota. A thorough literature search revealed only 2 previously reported cases of nasal myxoma [4,5]. The clinical course, histogenesis and treatment of the myxoma remain a matter of debate.

2. Case report

A 52-year-old Sudanese male presented to our clinic complaining of external nasal swelling for 18 months, slowly increasing in size, painless, and associated with excessive tearing right eye. The patient denied nasal obstruction, rhinorrhea, facial trauma, or headache. Physical examination revealed external nasal mass in the area of the right medial canthus 3 cm in diameter, round, hard, not mobile, not tender, and not attached to skin. The overlying skin is healthy and transillumination is negative. Thrill and bruit are negative (Fig. 1). CT scan of head demonstrated expansile, soft tissue bony lesion at the dorsum of the right nasal bone with well-lobulated margins, no calcification, and not invading the adjacent fat plane (Fig. 2A and B). MRI of head revealed a solid mass within the right nasal bone with high-signal intensity on

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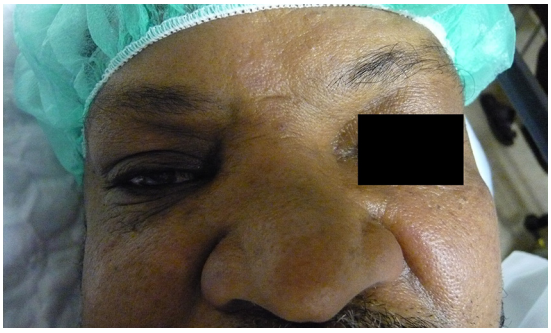

Fig. 1. Mass in the right nasal bone area.

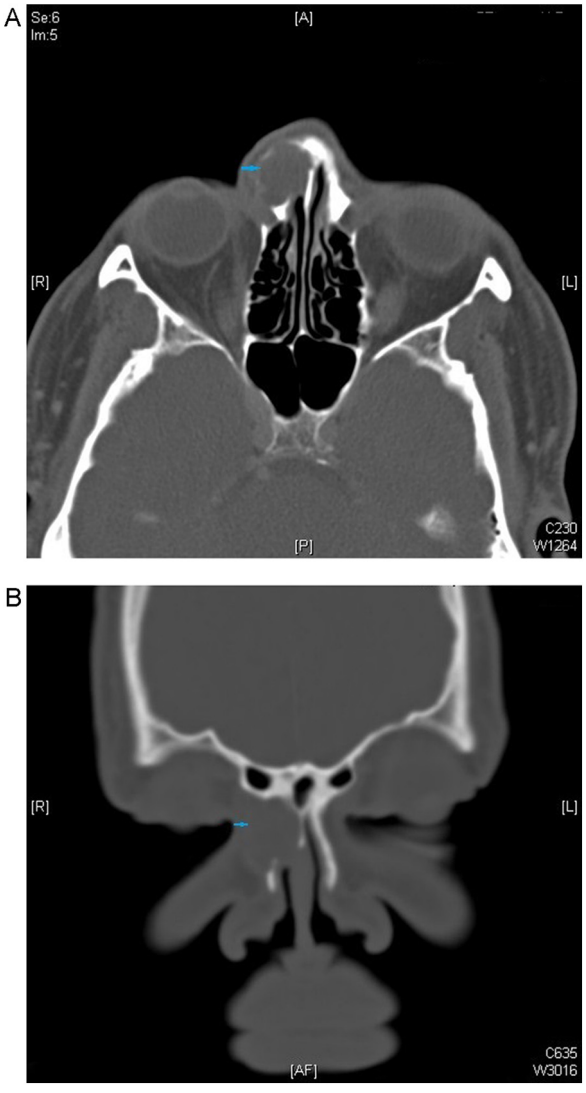

Fig. 2. (A) Axial cut CT scan demonstrating expansile mass in the right side of nasal bone (blue arrow). (B) Coronal cut CT scan demonstrating expansile mass (blue arrow) in the right side of nasal bone.

T2 and low-signal intensity on T1, measuring $2.5 \times 1.5 \times 2$ with no evidence of intracranial or orbital extension, which represent osseous lesion of the right nasal bone (Fig. 3A and B).

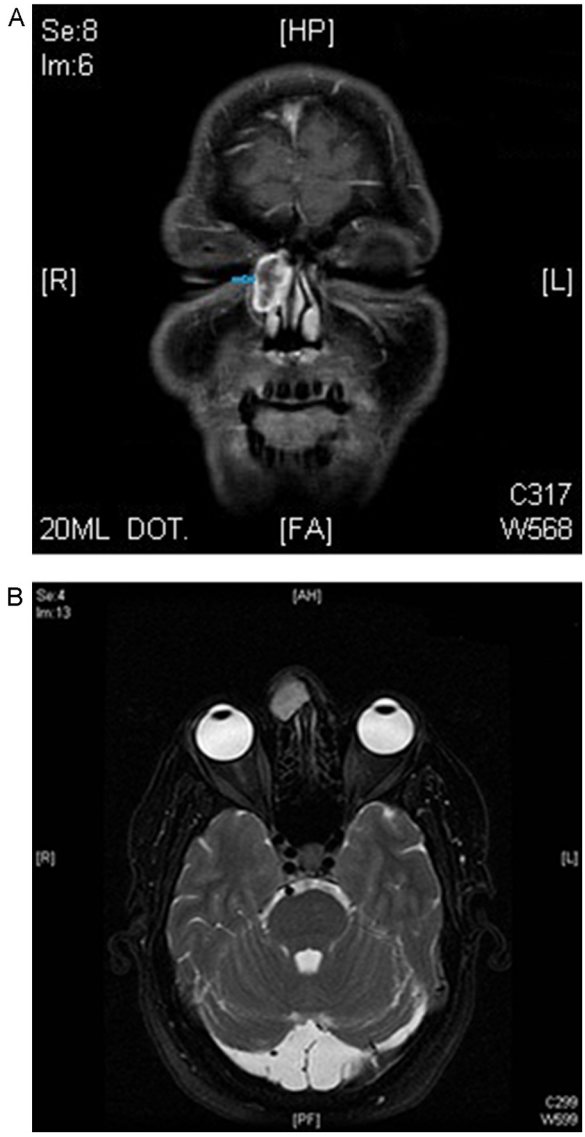

Fig. 3. (A) MRI T1 coronal cut with contrast showing highly enhanced mass (blue arrow) at the level of the right nasal bone with no intracranial or orbital extension. (B) MRI T2 axial cut showing high-signal intensity mass at the level of the right nasal bone.

FNA (fine needle aspiration cytology) was performed, which showed a cellular material with unsatisfactory specimen. Based on this observation the decision was taken to go for excisional biopsy.

Under general anesthesia, Lynch incision was made in the right side (Fig. 4); the mass was found eroding the lacrimal and nasal bone and the mass was removed completely (Fig. 5). During the excision, a defect of 2 cm in the lacrimal bone and nasal bridge (Fig. 6) was revealed, which was reconstructed by nasal septal cartilage and fixed by PDS (polydioxanone) suture.

The excised specimen confirmed the diagnosis of myxoma and showed spindle stellate cell lesion with myxoid background (Fig. 7) but no cellular atypia, mitosis, or necrosis. Immunohistochemistry showed positive tumors cells for vimentin and smooth muscle actin and negative for GFAP, S-100, CD34, Ki-67, Desmin, and CK (Fig. 7A and B).

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