

Ossifying fibroma of nasal cavity: A rare case report

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ABSTRACT

Ossifying fibroma (OF) is considered a rare benign fibro-osseous lesion that occurs most commonly in female patients. It mainly involves the mandibular and maxillary bones, although in rare cases, it may develop within the nasal cavity. Here, we present a rare case report of OF of the nasal cavity in a 30-year-old female. OF is usually diagnosed by histopathological examination and treated by enucleation. However, larger lesions require radical resection.

Key words: Histopathological examination, Nasal cavity, Ossifying fibroma

Ossifying fibroma (OF) is considered a rare benign fibro-osseous lesion that occurs most commonly in female than male patients (2:1) during the third and fourth decades of life [1]. It is a fibro-osseous tumor, mostly found in the craniofacial bones [2] and mainly involves the mandibular and maxillary bones, although in rare cases, it may develop within the nasal cavity or in long bones [3]. Here, we report a rare case of OF of the nasal cavity occurring in a 30-year-old female.

CASE REPORT

A 30-year-old female patient presented to our ENTOPD with complaints of the right nasal obstruction for the past 1 year. She also complains a headache and nasal discharge for the past 6 months. There was no history of nasal bleeding. On general examination, vitals were stable. Anterior rhinoscopy examination showed complete obstruction of the right nasal cavity by a firm to hard mass with nasal septum deviated toward the left side.

On probe test, it cannot pass all around. Routine blood investigations of the patient were as follows: Hemoglobin 11.7 g/dl, total leukocyte count 6100 cells/mm³, neutrophils 65%, eosinophils 30%, monocyte 3%, basophils 0%, platelets count 1.46 lakh cells/mm³, and status were non-reactive.

Computed tomography scan reveals a large, lobulated, soft density lesion with peripheral dense calcification and few calcific nodules in the right side of the nasal cavity extending superiorly into the right ethmoid air cells (Figs. 1 and 2). There is bowing of the right medial wall of maxilla laterally and displacement of nasal septum toward the left side. Based on the above clinical and radiographic features, a provisional diagnosis of benign lesions such as fibro-ossifying dysplasia and fibrous dysplasia was made.

For confirmation of the provisional diagnosis, a biopsy of the tissue was taken under local anesthesia and tissue was send

to histopathological examination. The microscopic examination section showed fibro-osseous lesion with the presence of trabeculae of the lamellar bone with a prominent osteoblastic rimming in a proliferating fibroblastic stroma (Fig. 3). There was no evidence of dysplasia or malignancy. Histopathological examination confirmed the diagnosis of the right nasal mass as OF. On the basis of biopsy findings, the nasal mass was surgically excised by intranasal endoscopic approach under general anesthesia. Nasal packing was done and the post-operative period was uneventful. The packing was removed after 48 h.

DISCUSSION

OF is one of the most common benign fibro-osseous lesions [4]. Although they are common in the mandible, occurrence in the paranasal sinuses is rare with only a few reported cases in the literature [5]. The first case of OF being reported in the literature was described in 1872 by Menzel. Later, Montgomery in 1927 coined the term, "OF" [6,7]. OF generally manifests in the third or fourth decades of life with a female predilection [1]. The most common site is the mandibular premolar-molar region, and only about 30% of cases occur in the maxilla [2].

They are generally encapsulated that serves to distinguish it from fibrous dysplasia, which may exhibit similar clinicopathological features [8]. In our case, the mass was present in the right side of the nasal cavity extending superiorly into the right ethmoid air cells, which is a rare finding. In radiographic studies, the initial lesions may exhibit unilocular radiolucency and somewhat sclerotic borders with gradual transformation to radiopacity [9]. On the basis of histopathological findings, we confirm the diagnosis of a fibro-osseous lesion with the presence of trabeculae of the lamellar bone with prominent osteoblastic rimming in a proliferating fibroblastic stroma.



Figure 1: Computed tomographic findings of an ossifying fibroma

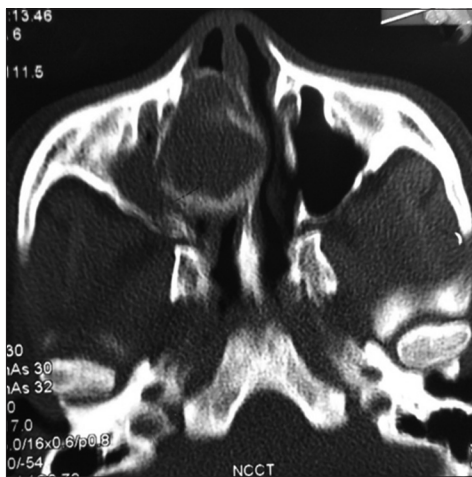


Figure 2: Computed tomography finding of a nasal mass showing peripheral calcification

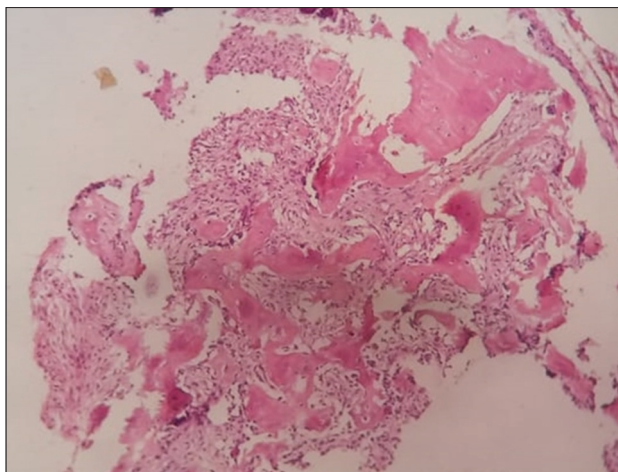


Figure 3: Histopathological examination showing fibro-osseous lesion

OF is described in the WHO classification as “an activity growing lesion consisting of a cell-rich fibrous stroma, containing band of cellular osteoid without osteoblastic rimming together with trabeculae of more typical woven bone. Small foci of the giant cell may also be present, and in some parts, there may be abundant osteoclasts related to woven bone” [10]. If the lesions are small, they are treated by enucleation. However, larger lesions require radical resection. Recurrence rates of these aggressive forms of OFs are about 30–38% [11].

CONCLUSION

OF of the nasal cavity is a rare pathology that can be treated by early detection and complete surgical excision of the lesion followed by long-term follow-up is necessary for proper clinical management.

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