Isolated Fibrous Dysplasia Of The Head Of Middle Turbinate

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Citation

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Abstract

Purpose: To report an unusual fibro-osseus lesion of isolated anterior end of the middle turbinate.

Design: A case report.

Patient and methods: A 34 year old female presented with the complaints of right sided purulent nasal discharge. Examination revealing enlarged anterior end of the middle turbinate. CT scan revealed fibro osseus lesion affecting only the anterior end on the middle turbinate with other paranasal sinuses being normal. It was excised endoscopically. Histopathology revealed it to be fibrous dysplasia.

Discussion: Fibrous dysplasia of the facial skeleton usually involves the ethmoid and maxillary sinuses affecting the adolescents. Isolated involvement of the middle turbinate is rare. The literature mentions three reports of middle turbinate fibrous dysplasia associated with involvement of adjacent ethmoid bone along with either endocrine disorder or Widal syndrome. This was adult female having the isolated fibrous dysplasia of the head of middle turbinate.

INTRODUCTION

Fibrous dysplasia of the skull and facial skeleton is not uncommon. It usually manifests with swelling of cheek and proptosis in adolescents[1]. We here report a case of isolated fibrous dysplasia of the head of the middle turbinate in an adult female. It is the first description of this kind in the English literature.

CASE REPORT

A 34 year old female presented to the out patient dept of Otolaryngology, Head & Neck Surgery, Postgraduate Institute of Medical Education & Research, Chandigarh, India with complaints of recurrent unilateral right sided purulent nasal discharge and obstruction not responding to medical management. Examination revealed enlarged anterior end of the middle turbinate on the right side blocking the ostium of the maxillary sinus. It was not shrinking on application of the vasoconstrictor. A probable diagnosis of the concha bullosa of the middle turbinate was kept and a non contrast computed tomogram (NCCT) of the paranasal sinus was carried out showing ground glass appearance of the affected area (Fig 1,2). Other paranasal sinuses were normal. The patient was subjected to endoscopic resection of the head of the middle turbinate involved under local anesthesia. Histopathology showed it to be fibrous dysplasia. The patient is on regular follow up for the last 10 months and is asymptomatic for any recurrence or further episodes of sinusitis.

Figure 1

Figure 1: Coronal CT of paranasal sinuses showing the lesion of the middle turbinate

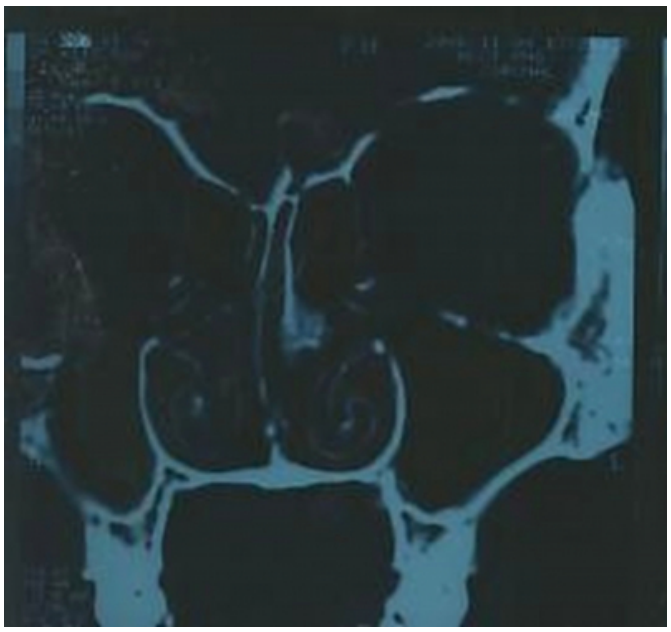
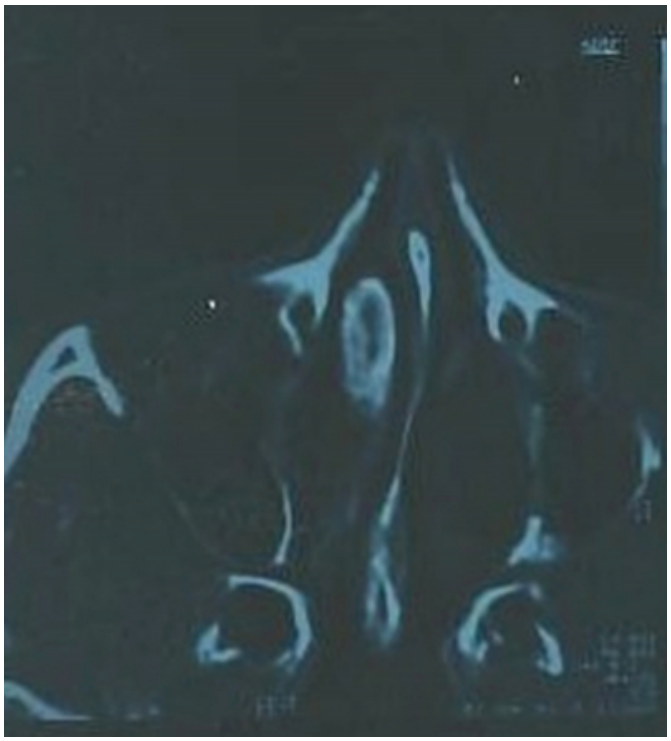


Figure 2

Figure 2: Axial CT of the paranasal sinuses showing the lesion.



DISCUSSION

Fibrous dysplasia of the facial skeleton usually involves the ethmoid and maxillary sinuses presenting with proptosis and cheek swelling. It affects the adolescents and presentation in adult age is uncommon[1].

It was first described by Lichenstein in 1938[2]. Amongst facial skeleton, it most commonly affects the area of the first molar of maxilla presenting with dental malocclusion, gum, palatal and cheek swelling. Next in the order is the involvement of ethmoid-sphenoid complex presenting with recurrent sinusitis, nasal obstruction and proptosis[3].

It is a developmental anomaly of idiopathic origin affecting the precursor of the bone and affects the osteoclastic differentiation and maturation[4]. It can be associated with endocrine disorders[5]. It can be monostotic, polyostotic or disseminated with extra skeletal manifestations as seen in Albright syndrome[6].

Isolated involvement of the middle turbinate is rare. The literature mentions three reports of middle turbinate fibrous dysplasia associated with involvement of adjacent ethmoid bone along with either endocrine disorder or Widal syndrome with only one report from the English literature[7,8]. Our case was adult female having the fibrous dysplasia of the head of middle turbinate with rest of the sinuses and bones normal and with no associated disorders.

CT findings of the case were typical for the disease[9] and the management done was surgical resection endoscopically.

CORRESPONDENCE TO

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References

1. Enzinger FM, Weiss SW. Soft tissue tumors. St. Louis: CV Mosby, 1983; 762-63.
2. Lichtenstein L. Polyostotic fibrous dysplasia. Arch Surg 1938; 36: 874-98.
3. Barnes L, Peel RL, Berbin RS, Goodman MA, Appel BN. Diseases of the bones and joints. In: Barnes L, ed. Surgical pathology of the head and neck, vol 2, New York: Marcel Dekker, 1985; 884-1044.
4. Dehner LP. Fibro-osseus lesions of the bone. In: Ackerman LU, Apell MR, editors. International Academy of Pathology, Monograph No. 17. Baltimore: The Williams and Wilcons Co., 1976: 209-35.
5. Ehrig W, Wilson DR. Fibrous dysplasia of bone and primary hyperparathyroidism. Ann Int Med 1972; 77: 234-8.
6. Albright F, Butler AM, Hampton AO. Syndromes characterized by osteitis fibrosa disseminata, areas of pigmentation and endocrine dysfunction, with precocious puberty in females: report of five cases. N Engl J Med 1937; 216: 727-46.
7. Saetti R, Silvestrini M, Marino F, Narne S. Fibrous

dysplasia of middle turbinate associated with Widal syndrome: endoscopic treatment of a rare case. Acta Otorhinolaryngol Ital. 2004; 24(5): 288-91.
8. LaBangara J Jr, Yuppa F, Klein MH. Fibrous dysplasia of the middle turbinate with primary hyperparathyroidism. Ear Nose Throat J 1998; 77(7): 552-3.
9. Leeds NE, Sieman WB. Fibrous dysplasia of skull and its differential diagnosis. Radiology 1962; 78: 570.

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