

Recurrent Benign Ossifying Fibroma of the Orbit – A Case Report

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Abstract: Ossifying fibroma (OF) is a benign fibro-osseous neoplasm which may be mistaken for other similar lesions due to overlapping clinical and radiological features. We reported a case of ossifying fibroma of roof of orbit in a 14 year old male patient which was a recurrence within the span of 2 years. The child came with the chief complaint of outward protrusion of right eyeball since 6 months. It was for the second time. It was slow in onset, protruded over the months to the present size and was not associated with the history of diminution of vision or pain associated with it. No history of trauma. The visual acuity of the patient was 6/6 in both eyes taken by snellen's chart. The fundus was within normal limits in both the eyes. The color vision was taken and was normal. Perimetry was normal excluding any field defect. Firstly he was operated and the tumor was excised. CT scan report was suggestive of well circumscribed lesion causing cortical expansion with intra-lesion around glass attenuation in roof of right orbit with extensions and proptosis of right orbit likely to be recurrence of ossifying fibroma. Treatment done was complete excision of tumor through orbital approach and reconstruction of roof of orbit under general anesthesia. Histopathologically, however, the lesion was interpreted as benign ossifying fibromas. Correlating the clinical, histopathological and radiological findings, a concluding identification of ossifying fibroma was given.

Keywords: Ossifying fibroma, proptosis, right orbit

Date of Submission: 12-01-2019

Date of acceptance: 29-01-2019

I. Introduction

Ossifying fibroma is a destructive, deforming, slow growing, benign fibro-osseous tumor which occurs anywhere in the facial skeleton.^{1,2}

It can cause facial deformities, sinus obstruction, proptosis and intracranial complications. There is high chances of recurrence and hence it is important to excise it completely to prevent recurrence.²

The peak age of incidence for ossifying fibroma is the third and fourth decades of life.^{3,4}

Ossifying fibroma also contains hypercellular fibrous tissue with the random presence of islands of bony tissue or cementiform calcifications.

Microscopically, it consists of irregular spicules of trabecular bone lined by osteoblasts.⁵ Histologically, ossifying fibroma is a well-circumscribed lesion comprising of fibroblastic stroma having lamellar bone and plexiform patterns in addition to acellular mineralized material.⁶

A relationship between clinical, imaging and histopathological features is the means for the beginning of precise diagnosis. It is important to make an early diagnosis, utilize the suitable treatment and follow-up the patient over a long term.

II. Case Report

We reported a case of a 14 year old male patient who came to ophthalmology OPD with the chief complaint of outward protrusion of right eyeball since 6 months (Figure 1).



Figure 1- Presentation of patient

It was slow in onset, protruded over the months to the present size and was not associated with the history of diminution of vision or pain associated with it. No history of trauma. The patient gave the history of similar complaints 2 years back for which he was operated. But the patient came again with the similar complaints within the span of 1.5 years.

On examination, the visual acuity of the patient was 6/6 in both eyes taken by Snellen's chart. The pupillary reaction both direct and consensual was normal in right eye. The fundus was within normal limits in both the eyes. The color vision was taken by Ishihara chart and was normal. The proptosis measured by exophthalmometer was 23mm. It was non-axial and causing anterior and infero-lateral displacement.

Perimetry was done with 30-2 parameter and was normal to exclude any field defect.

CT scan report was suggestive of well circumscribed lesion causing cortical expansion with intra-lesion ground glass attenuation in roof of right orbit with extensions and proptosis of right orbit likely to be recurrence of ossifying fibroma.

Treatment done was complete excision of tumor through orbital approach and reconstruction of roof of orbit under general anesthesia (Figure 2). Histopathologically the lesion had connective tissue stroma that was highly cellular with abundant collagen fibers and fibroblasts. Trabeculae of bone with plump fibroblasts and globules of calcification were distinguished. The lesion was interpreted as benign ossifying fibroma. Correlating the clinical, histopathological and radiological findings, a concluding identification of ossifying fibroma was given.



Figure 2- Postoperative presentation

III. Discussion

Ossifying fibroma is a benign tumor of facial skeleton. It is a fibro-osseous lesion which includes fibrous dysplasia and ossifying fibroma. Although, the two lesions are considered to be separate entities.

The CT scan features depend upon the stage of the development of ossifying fibroma and the amount of matrix that is present.

In the present case report, huge expansile mass was observed coming through roof of the orbit, whereas, Chang et al.,⁷ reported that 61% of the OF cases involved the posterior region of the mandible. This deviation might be because of variations in the number of cases available in earlier series when compared with the reports available around the world.^{8,9}

IV. Conclusion

Ossifying fibroma is an uncommon tumor presenting in variant types. Complete excision of this tumor has become necessary as it is notorious for recurrence. This case report adds the data about the presentation, clinical features, radiographic imaging with appearance and treatment of it, which in turn is helpful for proper diagnosis and treatment. Long term followup is required in these cases as it is prone to recur. The overall prognosis with most types of it appears to be good.¹⁰

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Dr Sachin Daigavane. “Recurrent Benign Ossifying Fibroma of the Orbit – A Case Report.”
IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 1, 2019, pp 29-31.