

Management Of Fibrous Dysplasia Of Bimax Region- Is The Extraoral Weber-Ferguson And Modified Lip Split Incision Justified ?

¹Dr Shiad Salim,²Dr Ashlin R,³Dr Amina,⁴Dr Akshaya, Dr Arya,⁶Dr Thahani

¹associate professor, Department of Oral and Maxillofacial surgery, PMS College of Dental Science and Research, Kerala, India

²³⁴⁵⁶ junior resident, PMS College of Dental Science and Research

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ABSTRACT

Fibrous dysplasia is characterised by excessive proliferation of bone forming mesenchymal cells. The maxilla is most commonly affected facial bone, with facial asymmetry being the usual complaint. Surgery is the treatment of choice with two available options; conservative bone shaving or radical excision and reconstruction resulting from various problems can have orbital re-reconstruction. Skeletal deformity in the fronto-maxilla is a significant aesthetic concern.

INTRODUCTION

Fibrous dysplasia is an important lesion affecting the maxillofacial region results from post natal mutation in a gene known as GNAS1 which cause severe deformity. It is a genetically based sporadic disease of the bone. Fibrous dysplasia presents in three forms monostotic, polyostotic and polyostotic with endocrinopathies in which monostotic fibrous dysplasia is the most common form. In the facial area, it is more frequently found in the maxillary bone than mandible. It commonly affects adolescents and young adults. Deformities leading to esthetic and functional disorders are observed in almost all cases.

DISCUSSION

Craniomaxillofacial fibrous dysplasia can be classified as monostotic (single bone) and polyostotic (multiple bones). In the craniomaxillofacial skeleton, monostotic Fibrous Dysplasia is more prevalent in the maxilla whereas the polyostotic form, accompanied by various endocrine disorders, is usually asymptomatic. In a patient with café-au-lait skin spots and precocious puberty, is called McCune-Albright syndrome. In a patient whose only clinical feature is monostotic fibrous dysplasia, to confirm the diagnosis a biopsy and identification of a somatic gene mutation may be required. However, many experienced clinicians and radiologists will often notice that a lesion appears characteristic of FD on radiographic examination because it is an expansile and ground glass appearance, thus diagnosing FD without the need for biopsy in typical maxillary lesion with a ground glass appearance. Diagnosis can also be made by histologic examination of the biopsied tissue. The typical microscopic features of FD include a background of loosely arranged fibrous stroma with irregular randomly oriented bony trabeculae of woven bone. Chinese characters have been described as trabeculae.

The differential diagnosis of the condition includes osteoma, osteosarcoma, osteoclastoma, cherubism and giant cell granuloma. The progressive growth of fibrous dysplasia can lead to serious complications. The clinical spectrum is very broad. Lesions on the midface can cause obstruction of the nostrils and difficulty opening the eyelids. In the oral cavity, the progression of the lesion can cause difficulty in mastication and speaking and also periodontal and occlusal changes can occur and this may even result in tooth loss. Changes in the development of the jawbone usually affect dental occlusion. Some times dental occlusion may get affected and which may of the jawbone usually affect dental occlusion. require orthodontic correction.

It is clear from clinical studies that the treatment necessary for this condition depends on its location in the

unction, and, ultimately cosmetics. Skeletal deformities can require a surgical craniofacial skeleton, its effect on f :approach. The available options include two different approaches

Conservative

Radical

who maintained that ¹⁰ ⁷Conservative shaving or osseous contouring has been recommended by some authors periodic contouring could be performed until a static phase was reached. Radical surgical therapy permits the ³ ²complete removal of the lesion followed by immediate reconstruction.

Mid facial degloving approach and the Weber Ferguson incisions are the possible alternatives for surgical access in the management of Fibrous dysplasia.

The steps in Weber Ferguson incision are as follows:

Initially, a vertical incision is marked from the nasolabial groove from the philtrum of the upper lip to the vermilion border which is then extended vertically to the buccogingival gutter crossing the buccal mucosa of the upper lip.

This allows us to separate the upper lip and ligate the labial arteries.

The other end of the incision is extended vertically till the nasal ala and traverses beyond it and extends vertically till the lower eyelid along the nasofacial groove.

Weber-Fergusson approaches provide excellent surgical access; However, they require a facial incision and lip split which is undesirable. Good principles of incision design is needed to hide resultant scar line. The lip split incision is associated with bothersome esthetic and functional sequela that include unsightly scar, vermilion nothing, loss of chin pad contour, decreased lip sensation, decreased mobility and oral commissure incontinence. To overcome these several modifications are proposed.

axilla and mandible The final cosmetic result is optimized by restoring the normal anatomical position of the m .with stable fixation and careful approximation of the soft tissues

The traditional unilateral or bilateral buccogingival or bicoronal approach often seems to impose limitations on extensive midfacial fibrous dysplasia. The midfacial achieving complete resection and reconstruction of the degloving approach could be used for the correction of maxillary fibrous dysplasia. The midface degloving suture, approach provides visualization of the medial maxillary wall, the pterygoid junction, nasofrontal infraorbital rim, and laterally to the temporal process of the zygoma. It provides no visible facial scarring and all .patients expressed satisfaction with the cosmetic outcome

te conditions for the use of drills and chisel In both cases presented here, the intraoral approach offered appropria .wear

Although there was scope for radical excision of the fibrous dysplasia and reconstruction of the defect, poor o adopt the patient compliance and the priority to relieve the symptoms and esthetic discomfort led us t .conservative surgery, which had a fairly good postoperative result

Facial deformity or changes plays a major role in a person's social interaction. A study conducted by Sean et al showed that about 30% of patients with severe maxillofacial injury were anxious and depressed. Age, sex, socioeconomic class, location of disfigurement cause of injury are a few factors that may influence the psychological impact on patients. Patients with disfigurement on the most noticeable parts of the face ie, the communication triangle between the eyes and the mouth are known to be more concerned and psychologically affected as it invokes major embarrassment and lack of self confidence in them.

s extension, and surgical preparation. There are CT is the test of choice for the study of lesion(s), evaluation of it three general radiographic patterns of CFD including: Ground glass appearance with mixed radiodense and ¹³radiotransparent areas; sclerotic, and cystic patterns.

CONCLUSION

proposed for removing maxillary tumours,each of which has it's own benefits A number of techniques have been .and drawbacks

The treatment protocol of fibrous dysplasia includes

.pno need for surgical intervention,but requires clinical follow u-If asymptomatic with no evidence of deformity

.surgical removal is the primary option for symptomatic cases due to variations in bone morphology

.The treatment also includes prosthetic rehabilitation to restore the patient's quality of time

e to vital structures and ensuring ease of operation, Successful treatment relies on avoiding irreversible damag Ferguson's method. By using this approach, the -which is achieved by Dieffenbach's modification of Weber direct access.It uninvolved vital structures are prevented from accidental resection through better visibility and facial pathologies. Proper planning, following the basic -is a flexible treatment approach for treating mid

principles, and careful handling of soft tissues will reduce any serious complications from taking place

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Joo Young Lee and Se Jin Han

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