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A Case Report On Mandibular Overgrowth (like Double Mandible): Astronizing But True !!

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ABSTRACT:
Mandibular growth is greater on fractured site than a non fractured site. Children less than 3 years of age with trauma to condyle are at greatest potential for growth disturbance especially due to ankylosis. Inadequate or over treatment may lead to growth retardation or excess. We present a case report in which un-diagnosed and unnoticed mandibular fracture presented to us, which leads to excess growth and possess a unique pattern of double mandible.

Key-words: Fracture, Double Mandible, Compensatory Growth, Remodelling, Condyle

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INTRODUCTION:

The mandible being the strongest and dense bone of the facial skeleton, which constitutes the bony structure of the lower third of the face. It is frequently fractured because of its prominence and presence of several areas of inherent weakness.[1]

Mandibular condyle in children is short, stout and highly vascular with thin cortical plates. The impact displaces condyle postero-superiorly against the skull base, thus leading to a range of injuries from capsule tear, heamarthrosis to fracture of condylar head or neck. Occasionally a crush injury to condyle can produce comminuted fracture.[2] Children less than 3 years of age with trauma to condyle are at greatest potential for growth disturbance especially due to ankylosis. Inadequate or over-treatment may lead to growth retardation or growth excess.[3]

This article reports a case of un-diagnosed and unnoticed mandibular fracture, which leads to excess growth and possess a unique pattern of double mandible.

CASE HISTORY:

A 14-year old young male patient reported to the Department of Dentistry, S.P. Medical College and Hospital Bikaner, Rajasthan. The patient complained of painless swelling on lower right side of the face for 5 years, which was gradually increasing (Figure-1). On the inspection facial asymmetry was evident and on palpation hard swelling was there at the angle and body region on the right side, which was not tender (Figure-2). Regional lymph nodes were examined and appeared normal. The patient's mouth opening was normal and oral hygiene was fair. There was no prior history of trauma or knowledge of congenitally missing teeth. There was no relevant medical history and patient was well nourished and moderately built.

Computed tomography scan shows calcified lesion originating from the angle of the mandible [right side] resembling double ramus (Figure-3). The surgery was planned under GA for resection of bony growth. The patient was shifted to the operation theatre. All vital parameters were noted with the help of multi parameter machines. Draping and scrubbing procedure carried out under standard protocol. Extended sub-mandibular incision given from the angle of the mandible to chin. Layer wise dissection was done. Extra bony growth (Figure-4) was resected and closure was done in layers. Surgical drain placed (Figure-5). The post-op recovery was uneventful. The patient was reviewed at regular intervals, initially once every week, followed by every two weeks and

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subsequently once in every month postoperatively.

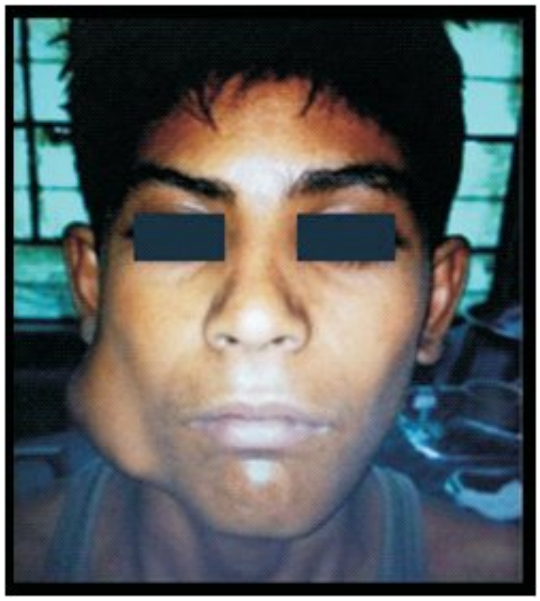

Figure 1: Frontal View of Patient

Figure 2: Lateral View of Patient

Figure 3: 3D-CT Scan of Patient

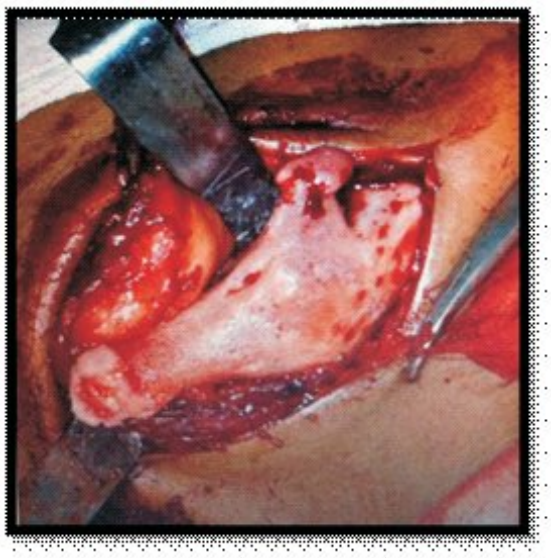

Figure 4: Extra bony Growth resected

Figure 5: suture placed

DISCUSSION:

The present case shows extra mandibular growth on the right side of the face.This is a unique case of un-diagnosed overgrowth of mandible. No familiar history given by the parents. That's why we assume that this happened may be because of unknown trauma. This case report supported by Lund[4] who stated that mandibular growth was greater on fractured site than the non fractured site.

Three types of growth patterns were noted:

1. Compensatory growth without overgrowth- fractured site grows

more, but in the end remains somewhat shorter than normal.

2. Compensatory growth with overgrowth- fractured site grows longer than normal.
3. Dysplastic growth- the fractured site grows less so the difference is accentuated with time.

Compensatory growth mainly occurred in patients growing at the time of injury. Lund[4] also defined two groups on the basis of the pattern of remodelling.

1. Incomplete remodelling in which condyle was irregular or displacement remained at fractured site.
2. Complete remodelling.

He concluded that patients with displaced condyle had a greater chance of incomplete remodelling. The process begins at the time of injury and continued for the period of 5 to 49 months. When remodelling occurred completely it consisted of resorption of the proximal condylar stump and outgrowth of the bony process on ramus resembling a normal condyle.

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