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To study the patterns of fractures of Mandible

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ABSTRACT:

Background- Injuries of the maxillofacial complex represent one of the most important health problems worldwide.

Methods- This was an observational, prospective, longitudinal study of patients presenting successively with maxillofacial fractures, attending the Department of dental and Radiology.

Results- Majority (43.37%) of fractures were seen in the age group of 20-40 years. 40% were condylar fractures followed by symphysis 30% and angle 20.00%.

Conclusion- Facial injuries are common and require radiologic evaluation to plan treatment.

Keywords- Maxillofacial trauma, CT scan, Fracture

INTRODUCTION:

Injuries of the maxillofacial complex represent one of the most important health problems worldwide. Particular interest is created by the high incidence and diversity of facial lesions.[1] According to reports of developing nations, traffic accidents are the main cause of maxillofacial fractures,[2] while data from developed countries pointed to assaults being considered the most frequent etiology of such fractures. With regard to the anatomical sites, mandibular and zygomatic complex fractures account for the majority of all facial fractures and their occurrence varies according to the mechanism of injury and demographic factors, particularly, gender and age. Severe trauma to the face is a strong indication for radiological investigation; however radiological evaluation of facial injuries may be difficult due to the complex anatomy of the region and to the difficulties in obtaining high-quality imaging studies in severely traumatized patients.[3]

Materials and Methods

This was an observational, prospective, longitudinal study of patients presenting successively with maxillofacial fractures, attending the Department of dental and Radiology. Most of the patients were referred from a nearby (across the road) Trauma center which were referred for dental evaluation. Patients who had refused to participate in the research or who had inadequately completed the form were excluded.

Result

Table 1: Age wise distribution

Age group(Yrs)	No. of patients	Percentage
<20	6	20.00
20-40	13	43.33
40-60	9	30.00
More than 60	2	6.67
Total	30	100

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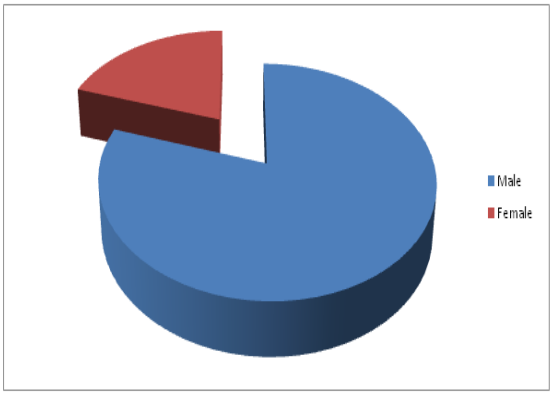
Majority (43.37%) of fractures were seen in the age group of 20-40 years.



80% patients were male and 20% were female.

Table 3: Pattern of mandible fracture

Type of mandible fracture	No. of patients	Percentage
Condyle	12	40.00
Angle	6	20.00
Body	3	10.00
Symphsis	9	30.00
Total	30	100

40% were condylar fractures followed by symphysis 30% and angle 20.00%.

Discussion

The largest proportion of Traffic accident related mandibular fractures in our study involved the condyle, followed by the mandibular angle. Similar fracture pattern was also seen in falls and stumbling cases. Ahmed et al[4] indicated that regarding the distribution of mandibular fractures, the majority (25.0%) occurred in the condyle and 23.0% in the angle.

Yamamoto et al[5] showed that the condyle (38.2%) and median (27.0%) were most frequently involved in the mandible irrespective of cause of trauma.

The importance of CT imaging in maxillofacial trauma cannot be overemphasized. CT has become the imaging gold standard for assessing injuries to all regions of the maxillofacial skeleton. Although CT serves as the principal means of qualifying the clinical diagnosis of complex maxillofacial fractures, routine CT scanning may not be necessary in every case of facial trauma. There is, however, increasing support that CT findings are important determinants of surgical management.[6]

Conclusion

Facial injuries are common and require radiologic evaluation to plan treatment. The role of imaging is to detect fractures, describe their morphology and topography, and evaluate adjacent soft tissue damage.

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