

THE PREVALENCE AND CLASSIFICATION AND TREATMENT OF FRACTURE MANDIBLE

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ABSTRACT

In the United States, trauma constitutes the third major cause of death of all age groups. Facial fracture treatment ranges from the simple to the very complex. The Aim of Treatment of mandibular fracture is to restore the function and aesthetics. This prospective study is include 250 cases from May 2013-April 2017 present to the department of maxillofacial surgery. The most common age between 18years-30years (65%). In this study 240 Male (96%) and 10 Female (4%). The most common cause of fracture mandible in this study is road traffic accident (70%) The most common fracture site is angle fracture followed by subcondylar fracture. In this study 240 cases treated by close reduction and intermaxillary fixation (96%) under local or general anesthesia, while 10 cases(4%) treated by open reduction and fixation Regarding the anatomical reduction there is no significant difference in occlusion between the close and open reduction except for 2 cases with symphyseal fracture close reduction result in malocclusion.

KEYWORDS: prevalence, classification, mandible.**Aim Of Study:** Determine the Prevalence and Outcome of Treatment Of Mandible.

scan). All the patients treated by close or open reduction under local or general anesthesia.

INTRODUCTION

In the United States, Trauma Considered the third major cause of death of all age groups.^[1] The major causes of trauma-related death are sever injury of the central nervous system (50%) and uncontrolled hemorrhage (35%).^[2] Facial fracture treatment ranges from the simple to the very complex.^[3] Fractures of the mandible are common. The goal of treatment of mandibular fracture is to restore the function and aesthetics. The treatment vary from closed treatment to open techniques.^[4] The causes of fracture mandible are : fall from height, sport injury, motor vehicle accidents, pathology.^[5] "Patients who have sustained a mandible fracture often have associated injuries.^[6] Mandible fractures sustained in motor vehicle accidents (MVA) have a high incidence of concomitant injuries. Fischer et al.^[7] found that associated injuries mostly in the head and neck, chest, abdomen, and upper and lower extremity".

MATERIALS AND METHOD

1. This prospective study is include 250 cases from May 2013-April 2017 present to the department of maxillofacial surgery.
2. All the patients have been examine in the emergency room before referred to maxillofacial department to exclude other injuries. The diagnosis based on clinical examination and imaging (Plain x-ray or CT

RESULT

This study includes 250 cases of fracture mandible from May 2013-April 2017. Between age of 3years to 55 years, the most common age between 18years-30years (65%)table1.In this study 240 Male(96%) and 10 Female(4%), male to female ratio(24-1) table 2.The most common cause of fracture mandible in this study is road traffic accident(70%), followed by bullet injury and blast injury(war injury)(16%) , fall from height (10%) and miscellaneous (4%) table 3.The most common fracture site is angle fracture followed by subcondylar fracture.table 4

Table(1): Distribution of age.

Age/years	No.	%
0-10	10	4%
10-20	30	12%
20-30	160	64%
30-40	32	12%
40-50	10	4%
50-60	8	3%

Table(2): Distribution of sex.

Sex	No.	%
Male	240	96%
Female	10	4%

Table(3): Causes of trauma

Cause	No.	%
R.T.A	175	70%
War injury	40	16%
Falls	25	10%
miscellaneous	10	4%

Table(4): Distribution of fracture site

Fracture site	No.	%
Angle	76	30%
Condylar	66	26%
Body	56	22%
Symphyseal	45	18%
Ramus	5	2%
Coronoid	2	0.8%

Table(5):Type of reduction

Type of reduction	No.	%
Close	240	96%
Open	10	4%

DISCUSSION

In this study 96% of patients are male and this belong to the activity of our population depend on male(developing countries),in addition to the war against ISIS in Iraq in which the most victim are male. In this study the most common age of fracture mandible between 18 years and 30 years, this may be due to high use of motor cycle in this age with lack of the proper safety measures. In this study 70% of fracture mandible due to R.T.A, this may be due to bad roads condition and lack of safety measures with absence of driving license among the drivers, and this agree with (Dhananjay Brade)^[8] that 68% of fracture mandible due to road traffic accidents. In this study 16% of cases due to war injury, and these cases are characterized by multiple fractures and also hard and soft tissues lost, and more than one surgical intervention may be need. In this study 10% of cases due to fall from height and most of them children less than 12years.In this study, most common site of injury in the angle followed by condylar fracture. This agree with (Haug RH et al) that the incidence of angle fracture higher than condylar fracture^[6], this may be due to change of the direction of trabeculae in the junction of body of the mandible and ascending ramus and also the presence of the impacted wisdom teeth decrease the volume of bone. In this study the subcondylar fracture is the second most common site, may be due to narrow neck(weak) that required less force to be fractured than other sites. In this study 240 cases treated by close reduction and intermaxillary fixation (96%) under local or general anesthesia, while 10 cases(4%) treated by open reduction and fixation under general anesthesia table 5. Regarding the anatomical reduction there is no significant difference in occlusion between the close and open reduction except for 2 cases with symphyseal fracture close reduction result in malocclusion due to action of muscles insert in the superior and inferior mental spine and digastric fossa which displaced the

fracture, also close reduction avoid the risk of general anesthesia, scar formation and minimize the coast.

CONCLUSION

1. The government in the developing countries should take agreat share in minimizing the R.T, A.
2. The close reduction and intermaxillary fixation should be considered befor the decision of open reduction and fixation as there is no significant difference in occlusion between the close and open reduction.

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