



AN EPIDEMIOLOGICAL STUDY OF MANDIBULAR FRACTURES AT GOVERNMENT DENTAL COLLEGE & HOSPITAL, JAIPUR

Vikas Sarowa¹, Gupta D.K², Anjali Dave³, Sankalp Mittal⁴ and Manphool Singh Maharia^{5*}

^{1,4}Department of Oral & Maxillofacial Surgery, Government Dental College & Hospital, Jaipur

⁵Department of ENT, Sardar Patel Medical College, Bikaner, Rajasthan, India

ARTICLE INFO

Article History:

Received 10th December, 2017

Received in revised form 12th

January, 2018 Accepted 05th February, 2018

Published online 28th March, 2018

Key words:

Mandible, trauma, fracture

ABSTRACT

Background- Bone is a dynamic tissue and its basic function is to carry load and to support and protect organs.

Methods- The study comprised of 15 patients having mandibular fractures, attending the outpatients department and emergency of Department of Oral & Maxillofacial Surgery, Government Dental College & Hospital, Jaipur.

Result- Most common (73.3%) cause of injury was RTA. Majority of patients (40%) were from 16-30 and 31-45 Yrs age group respectively. Most common site of fracture of mandible was angle of mandible.

Conclusion-The mandibular fractures were more common in males than females with the highest percentage in 16-45 years of age. Road traffic accidents were the most common cause of fracture.

Copyright©2018 Vikas Sarowa et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Bone is a dynamic tissue and its basic function is to carry load and to support and protect organs. The strength & rigidity of bone are therefore its primary qualities. Fracture of any bone in the skeleton is a painful injury which interferes with the function of the effected part of body. Most fractures heal with no long term consequences but some either fail to heal or continue to cause pain and decreased function.

Facial area is one of the most frequently injured area of the body, accounting for 23-97% of all facial fractures.¹ Mandible is the only mobile bone of facial skeleton and their has been a significant increase in number of cases in recent years. It is embryologically a membrane bone and is more commonly fractured than the other bones of face. Mandibular fractures occur twice as often as mid facial fractures².

MATERIAL AND METHODS

The study comprised of 15 patients having mandibular fractures, attending the outpatients department and emergency of Department of Oral & Maxillofacial Surgery, Government Dental College & Hospital, Jaipur. Pre-operatively detailed medical history of the patients was recorded. Patients were diagnosed on the basis of clinical examination and radiographic interpretation. Routine investigations were done. Informed consent was taken to participate in the study.

*Corresponding author: Manphool Singh Maharia

Department of ENT, Sardar Patel Medical College, Bikaner, Rajasthan, India

Inclusion criteria

1. The patients were taken up randomly irrespective of age, sex, caste and creed.
2. Patients with isolated fractures of mandible were selected.

Exclusion criteria

1. Refused consent.
2. Patients who were suffering from major systemic disease.
3. Mandibular fractures with comminution and infection were excluded.
4. Pathological fracture.
5. Pregnant and lactating females

RESULTS

Table 1 Etiology

Etiology	No. of patients	Percentage
RTA	11	73.3
Assault	1	6.7
Other	3	20
Total	15	100.00

Most common (73.3%) cause of injury was RTA.

Table 2 age wise distribution

Age group (Yrs)	No. of patients	Percentage
1-15	1	7
16-30	6	40
31-45	6	40
46-65	2	13
Total	15	100.00

Majority of patients (40%) were from 16-30 and 31-45 Yrs age group respectively.

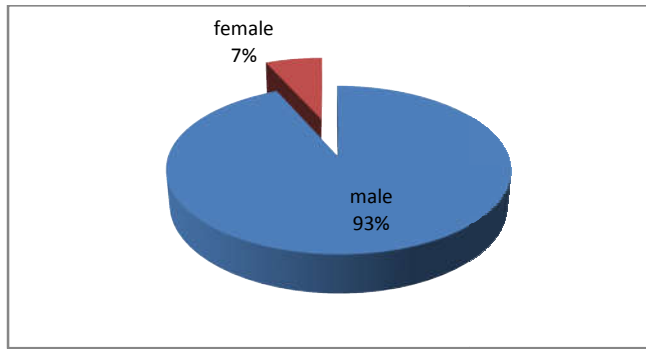


Table 3 site distribution

Site	No. of patients
Symphysis	1
Parasymphysis	1
Angle	5
Parasymphysis + U/Lcondyle	3
Parasymphysis + B/L condyle	1
Parasymphysis + angle	2
symphysis + angle	1
Body + angle	1
Total	15

Most common site of fracture of mandible was angle of mandible.

DISCUSSION

The sheer pace of modern life with high-speed travel as well as an increasingly violent and intolerant society has made facial trauma a form of social disease from which no one is immune. Seemingly, divergent shifts in society may be responsible for recent changes in patterns of facial injuries, extent, clinical features, and so forth resulting in massive disfigurement of maxillofacial skeleton. Mandible is the only mobile bone of facial skeleton, and there has been significant increase in the number of cases in recent years. Mandible fractures if not identified or inappropriately treated may lead to severe consequences both cosmetic and functional.

In this study, the incidence was highest in 16 to 45 years of age (80%) followed by 45 to 60 years of age (30%). This is in conformity with Adi *et al.*³, Bataineh⁴ and Dongas and Hall⁵. Male are predominating with 93% while female constitute a meager percentage of 7% in our study. This is in conformity with Adi *et al.*³.

Most common site of fracture of mandible was angle of mandible in our study. Adi *et al.*³ was also reported that most common site was angle of mandible.

CONCLUSION

The mandibular fractures were more common in males than females with the highest percentage in 16-45 years of age. Road traffic accidents were the most common cause of fracture.

References

1. G. O. Kruger, Textbook of Oral and Maxillofacial Surgery, Jaypee Brothers, 6th edition, 1990.
2. T. J. Edwards, D. J. David, D. A. Simpson, and A. A. Abbott, "Patterns of mandibular fractures in Adelaide, South Australia," *Australian and New Zealand Journal of Surgery*, vol. 64, no. 5, pp. 307-311, 1994.
3. M. Adi, G. R. Ogden, and D. M. Chisholm, "An analysis of mandibular fractures in Dundee, Scotland (1977 to 1985)," *British Journal of Oral and Maxillofacial Surgery*, vol. 28, no. 3, pp. 194-199, 1990.
4. B. Bataineh, "Etiology and incidence of maxillofacial fractures in the north of Jordan," *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics*, vol. 86, no. 1, pp. 31-35, 1998.
5. P. Dongas and G. M. Hall, "Mandibular fracture patterns in Tasmania, Australia," *Australian Dental Journal*, vol. 47, no. 2, pp. 131-137, 2002.

How to cite this article:

Vikas Sarowa *et al* (2018) 'An Epidemiological Study of Mandibular Fractures at Government Dental College & Hospital, Jaipur', *International Journal of Current Advanced Research*, 07(3), pp. 10857-10858.
DOI: <http://dx.doi.org/10.24327/ijcar.2018.10858.1862>
