

# INCIDENCE AND PATTERN OF MAXILLOFACIAL TRAUMA IN SATNA DISTRICT OF MADHYA PRADESH

## Dentistry

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### Abstract:

**Introduction:** - Trauma is one of the leading cause of death and disability in the world. Maxillofacial injuries cause permanent disfigurement and fracture of different parts of face and oral cavity.

**Aim:-** Epidemiological study to find out the incidence and pattern of maxillofacial trauma in Satna district from May 2017 to April 2018

**Material and method:-** It is multicentre study. 76 patients of maxillofacial trauma who had attended the corporate hospitals in Satna district during the period of May 2017 to April 2018 were included in the study. Type, cause and age wise pattern of injury and influence of alcohol on the injuries were assessed

**Result:-** Most of the trauma victims between the age group of 22 to 30 years were males. Road traffic accidents were main cause of trauma (75%) and out them 65% occurred under the influence alcohol consumption. 80% cases were grievous injuries to teeth were found more common in the younger age group. Injuries to soft tissues were more common in elderly persons. Significant impact of alcohol consumption was detected in victims of road traffic accidents.

**Conclusion:-** this study implies that in road traffic accident alcoholic consumption is major contributory factor. In requires to take preventive majors with the purpose to promote modifications of the behavior of the society.

**Key Words:-** Maxillofacial trauma road traffic accidents, behavior.

### Introduction

Injuries due to trauma are on unprecedented high across the globe more so in developing countries like India. The reasons are not far to seek. Road traffic accidents are on the rise, so are the industrial, agricultural, accidents, natural disaster, assault, and due to fall etc. suddenly injuries have gained the tag of modern international epidemic that is ravaging young lives like never before. Injuries are the fourth leading cause of death over all ages (6%) Maxillofacial trauma

causes injuries to skeleton components, dentitions as well as soft issues of the face and frequent cause of presentation in an emergency department. Injuries of this highly vascular zone are complicated by the presence of upper air way and proximity with cranial and cervical structure that may be concomitantly involved<sup>1</sup>. In developing countries and western world RTA and interpersonal violence is the most causative factor<sup>2</sup>. Many factors such as topography of land, population density, occupation and its related hazards, the prevalence of habits like

use of alcohol and narcotics in the society play a major role in the type accidents and patterns to trauma suffered by the society. RTA is a leading cause of morbidity and mortality in adults below the age of 50 years and the greatest numbers of cases are males in 20-30years age group<sup>3</sup>.

Annually more one million deaths are recorded worldwide, while nonfatal RTAS are major problem causing hospitalization and permanent disability to thousands of persons each year<sup>4,5</sup>. Hence the present study is carried out to find out the incidence and pattern of maxillofacial trauma in Satna district at corporate hospitals from May 2017 to April 2018.

### Material and Method

A retrospective analysis was done on the medical case records of patients treated for maxillofacial trauma in corporate hospitals in Satna district from May 2017 to April 2018 the data collected by trained personnel and privacy of the patients' data was maintained by the investigators by use of ultra coding.

### Results

Among 76 patients data the most common age group suffered from such trauma was of 22-30 years. About 75% persons were males. 75% of maxillofacial trauma was due to road traffic accidents and skidding of the two wheelers was to be most common one (50%). Alcohol consumption 65% found to be an influencing factor in the majority cases. Most of the trauma cases were severe they were classified as grievous (80%).

**Types of injuries were sustained are given in table one cause of reported trauma is given to table two**

Type of injuries	No. of cases
Dento alveolar	40
Mandibular fracture	13
Maxillary fracture	8
Zygomatico temporal fractures	2
TMJ fracture	2
Soft tissues injuries	11

	N (%)
Road traffic accidents	57 (75%)
Violence	10 (13.15%)
Industrial accidents	2 (2.63%)
Others	7 (9.22)

### Discussion

This is multicentre retrospective study conducted in district Satna at corporate hospitals to analyze the pattern, incidence, etiological factors and management of maxillofacial trauma. Our study reveals that RTA were the major factor of the maxillofacial injuries and this is consistent with many other studies which have claimed road traffic accident to be the leading cause of maxillofacial fractures in developing countries<sup>6,7</sup>. Males are at greater risk because of their involvement in high risk activities which increases their exposure to risk factors such as driving vehicles, sports that involve physical activity, an active social life which involves usage of alcohol and drugs. Another significant finding of this study was that, in a large number of patients, alcohol consumption before the accident was reported and clinically detected. This comparable with other studies which suggest a strong association between alcohol consumption and maxillofacial injuries<sup>8-10</sup>. It was also observed that most of victims were in the age group of 20-30years. This is group can be classified as a most dynamic phase of life with great personal independence, social excitement, intense mobility, with careless driving on the roads. The influence of alcohol on this youngster adds to this effect. We also found that two thirds of patients had injuries to teeth. As already documented dentoalveolar fractures commonly occur in bike accident especially when the security mechanisms are neglected. Damage to the teeth in any form badly affect the aesthetics of the person can even cause psychological impact on the person. Mandible was most commonly involved in fractures of facial bones followed by maxilla and the zygomatic complex it was also found that cases open reduction and fixation had reported with infection due to poor oral hygiene and repeated alcohol consumption so conservative management was prefer unless the clinical condition warranted a surgical intervention. More emphasis is required to promote the modification of behavior of society as a whole and to strengthen the level primary prevention of RTAS, violence and other causes trauma.

It has been observed that safer roads, effective enforcement of law and proper implementation public transport policies

have resulted in significant decrease in occupation of road traffic accidents in developed countries.<sup>11-13</sup>

## Conclusion

This study implies that road traffic accidents are the major causative factor of maxillofacial trauma. Influence of alcohol has significant impact RTA. Younger persons are more prone to these injuries. Observation of this indicates that a stringent promotive and preventive major needs to be implemented to decrease the menace of RTAS.

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