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Original Research Article.

Retrospective Analysis of Road Traffic Accident Patients among Patients Visited in Tertiary Care Teaching Hospital

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ABSTRACT

Background: Accidents, tragically, are not often due to ignorance, but are due to carelessness, thoughtlessness and over confidence.

Materials & Methods: This study was conducted in the Department Community Medicine, Pacific Medical College and Hospital, Udaipur, Rajasthan, India. It included 80 patients with road traffic accidents of both genders. Type of fracture, vehicles of victims etc was recorded.

Results: Age group 20-40 years had 10 males, 5 females, age group 40-60 years had 15 males and 20 females and 60-80 years had 25 males and 5 females. The difference was significant (P< 0.05). Type of injury was mandible fracture in 12 patients, maxilla fracture (14), laceration of skin (19), rib fracture (25), radius fracture (10), rib fracture (14) and head injury in 15 patients. The difference was significant (P< 0.05). Commonly involved vehicle was car (40), truck (15), scooter (10), bus (5) and bike (10). The difference was significant (P< 0.05).

Conclusion: Most commonly females are involved in RTA. Commonly occurring injury was rib fracture and car was commonly seen.

Key words: Fracture, Maxilla, Road Traffic Accidents.

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INTRODUCTION

Accidents, tragically, are not often due to ignorance, but are due to carelessness, thoughtlessness and over confidence. William Haddon (Head of Road Safety Agency in USA) has pointed out that road accidents were associated with numerous problems each of which needed to be addressed separately. Human, vehicle and environmental factors play roles before, during and after a trauma event. Accidents, therefore, can be studied in terms of agent, host and environmental factors and epidemiologically classified into time, place and person distribution.

The rapid urbanization, industrialization and migration along with other social changes have resulted in increasing necessity for travel across all age groups in the entire country.[1]

With poor public transportation systems and inability of people to afford cars, the personal modes of transport have increased across Indian cities and in rural areas. This increasing reliance on motor vehicles and motorcycles has also started influencing health of people in a significant way.[2]

Accident is an event, occurring suddenly, unexpectedly and inadvertently under unforeseen circumstances. An accident that takes place on the road involving a vehicle is termed as road traffic accident.

Each year, road traffic injuries take the lives of 1.2 million people around the world and seriously injure millions more. Road traffic injuries are predicted to rise from ninth place in 2004 to fifth place by 2030 as a contributor to the global burden of diseases. Nearly three quarter of deaths resulting from motor vehicle crashes occur in developing country.[3] The present study was conducted to assess the cases of road traffic accidents.

MATERIALS & METHODS

This study was conducted in the Department Community Medicine, Pacific Medical College and Hospital, Udaipur, Rajasthan, India. It included 80 patients with road traffic accidents of both genders. All were informed regarding the study and written consent was obtained. General information such as name, age, gender etc was recorded.

Road Traffic Accident (RTA) was defined as accident, which took place on the road between two or more objects, one of which must be any kind of a moving vehicle. Type of fracture, vehicles of victims etc was recorded.

Results thus obtained were subjected to chi square test. P value < 0.05 was considered significant.

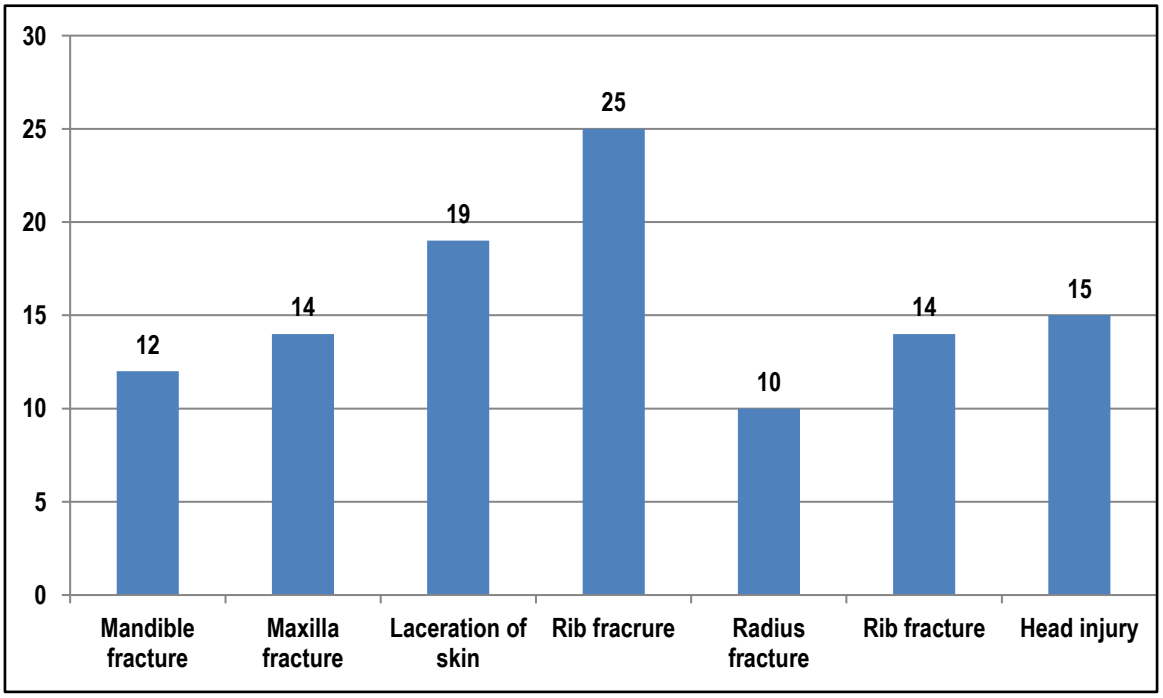
RESULTS

Age group 20-40 years had 10 males, 5 females, age group 40-60 years had 15 males and 20 females and 60-80 years had 25 males and 5 females. The difference was significant (P< 0.05). Graph I shows that type of injury was mandible fracture in 12 patients, maxilla fracture (14), laceration of skin (19), rib fracture (25), radius fracture (10), rib fracture (14) and head injury in 15 patients. The difference was significant (P< 0.05). Graph II shows that commonly involved vehicle was car (40), truck (15), scooter (10), bus (5) and bike (10). The difference was significant (P< 0.05).

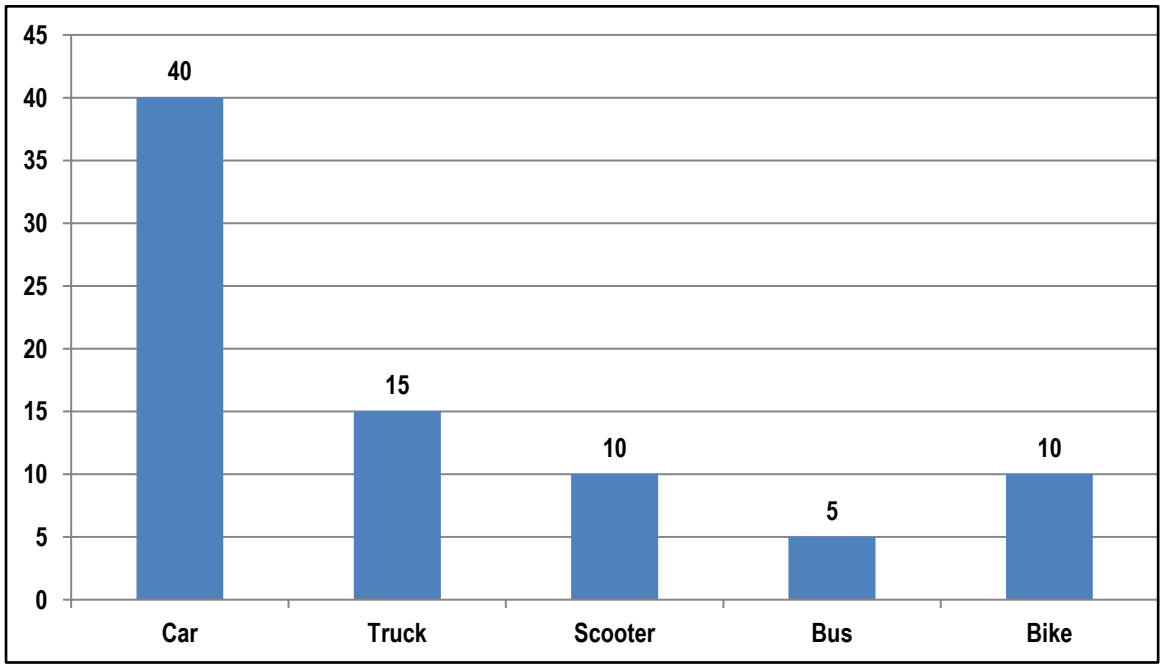
Table I: Age wise distribution of cases

Age group (years)	Males	Females	P value
20-40	10	5	0.01
40-60	15	20	
60-80	25	5	

Graph I: Type of injury



Graph II: Type of vehicles



DISCUSSION

Road Traffic Injuries (RTIs) accounts for 30 to 86% of the trauma admissions to hospitals in low income and middle income countries. Reasons for high burden in road traffic-related deaths and injuries in developing countries are primarily due to Growth in motor vehicle numbers, Poor enforcement of traffic safety regulations, Inadequacy of public health infrastructure, Poor access to health services, etc. in comparison to the developed nations.[4] Apart from the humanitarian aspect of the problem, traffic accidents and injuries in these countries incur an annual loss of $ 65 billion to $100 billion annually. These costs include both loss of income and the burden placed on families to care for their injured relatives.[5] Ajanta et al[6] found that out of 726 road traffic victims reported in one year period, there were 83% male and 17% female accident victims. Labourers were the highest (29.9%) among the victims. The highest number of accidents took place in the month of January (12.9%) and on Sundays (17.1%). The occupants of the various vehicles constituted the large (45%) group of the victims. Among the motorized vehicles, two wheeler drivers were more (31.1%) involved in accidents. Out of 254 drivers 14.9% were found to have consumed alcohol. Being knocked down was the common mode of accidents.

In present study we found that Age group 20-40 years had 10 males, 5 females, age group 40-60 years had 15 males and 20 females and 60-80 years had 25 males and 5 females. This is in agreement with Sharma et al.[7] Injuries due to RTA depend upon a number of factors-human, vehicle and environmental factors play vital roles before, during and after a serious RTA. The important factors are human errors, driver fatigue, poor traffic sense, mechanical fault of vehicle, speeding and overtaking, violation of traffic rules, poor road conditions, traffic congestion, road encroachment etc.[8] We observed that type of injury was mandible fracture in 12 patients, maxilla fracture (14), laceration of skin (19), rib fracture (25), radius fracture (10), rib fracture (14) and head injury in 15 patients. Shruthi et al[9] found that road traffic accident (RTA), a cause of unnatural death is the third major preventable one amongst all deaths. Road deaths in India are publicly glaring, while road safety is professionally lacking and politically missing. Out of 225 autopsied RTA victims, 55.11% victims were between 21-30 years of age, males constituted 78.22% of the total victims, and four wheeler vehicles were involved in 68.44% RTAs. Maximum RTAs occurred during the daytime, between 6 AM to 12 PM. Head injures constituted 30.22% of the total injuries, followed by injuries involving abdomen, thorax and limb. Hemorrhagic shock caused 63.11% of deaths, while head injury caused death in 30.22% of cases.[10]

CONCLUSION

Most commonly females are involved in RTA. Commonly occurring injury was rib fracture and car was commonly seen.

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