

Road Traffic Accidents brought to the Medicolegal Department of Sandeman (Prov) Hospital Quetta during the year 2001

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ABSTRACT

Aim: To determine the variations, distribution of injured in road traffic accidents victims and month wise distribution of road traffic accidents victims, which were presented to medico-legal department of Sandeman (Prov) hospital Quetta.

Study Design: Observational cross sectional

Place of study: Data were collected from medicolegal department of Sandeman provincial Hospital Quetta and study was conducted at Avicenna Medical College, Lahore.

Duration of the study: 01-January-2001 to 31-December 2001

Methods: A total of 2028 medicolegal patients of road traffic accidents have been taken. A proforma was designed to record the date, age, sex, distribution of victims, the manner of injury and the identity of cases brought in.

Results: Data were analyzed on using SPSS version 20. Road Traffic accidents results showed, out of 2080 cases males 1600(76.9%) and 480(23.1%) were females. The most frequent cases of road traffic accidents were found at the age of 21-30yrs, 600(28.8%) the most common victims were Rear seat passengers 720 (34.6%) highest percentage of RTA victims admitted to emergency department of Sandman (Prov) hospital Quetta was in June 350 (16.8%).

Conclusion: Strict implementation of traffic rules and regulations can be helpful to avoid R.T.A. Males were more affected in R.T.A. as compared to females.

Keywords: RTA, age group,

INTRODUCTION

An accident is "occurrence in a sequence of events which usually produces unintended injury, death or property damage".(1) Accidents, tragically, are not often due to ignorance, but are due to carelessness, thoughtlessness and over confidence². 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 (3). Human, vehicle and environmental factors play roles before, during and after a trauma event(2). Accidents represent a major epidemic of non communicable disease in the present century. They are part of the price we pay for technological progress⁴. As per Global Status Report on Road Safety (GSRRS) 2013, about 3400 people died per day

due to RTAs in the world during 2010, nearly 700 of them being children(5,6). Nearly 1.3 million people die on the world's roads every year and about 20 to 50 million suffer grievous injuries, making them often disabled. Half of those dying are vulnerable road users viz., 22% pedestrians, 5% cyclists and 23% motorcyclists. Young adults between 15 and 44 years constitute 59% of global RTAs^{5,6}. Calling road fatalities an "epidemic" that will become the world's fifth biggest killer by 2030, the report said while rich nations had been able to lower their death rates, these were sharply on the rise in the third world.(1) In a 2009 report, WHO estimated that in Pakistan road traffic injuries result in 25.3 deaths per 100,000⁷, which is high by the international organization's standards. In the last 15 years, extensive efforts have been made to collate data about road traffic injuries and mortalities at the city and national levels in Pakistan (8). There was a gap between the trends and results which were on medical record, so this study was planned to analyze the sex variations, distributions and month wise distribution of road traffic accident victims which were presented for medico-legal department in Sandeman (Prov) Hospital Quetta.

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MATERIALS & METHODS

This is a descriptive cross-sectional study and data were collected from 01 January 2001 to 31-December 2001. A total of 2080 medicolegal patients of road traffic accidents have been taken. The inclusion criteria were any case of medico-legal road traffic accidents and were brought to the emergency department of Sandeman (Prov) Hospital Quetta. Any other emergency or medicolegal cases were excluded from the study sample. A proforma was designed to record the date, age, sex, distribution of victims, the manner of injury and the identity of cases brought in. Age was categorised into seven groups: Group 1 includes age of the patient from (0-10yrs), Group 2 patients (10-20 years), Group 3 patients comprised of (21-30 years), Group 4 patients included (31-40 years), and Group 5 patients (40-50 years) Group 6 (51-60yrs) and in Group 7 age taken from (above 60 yrs). Road traffic accident victims were classified in to four main groups Pedestrian, Passengers (Front and rear seat passengers of car, mini truck, van, buses) , Drivers and motorcyclists/bike were taken. Statistical analysis was done on SPSS version 20. The frequency and percentages were calculated for all categorical variables — age, sex, identity, distribution of victims and month wise frequency. Ethical approval was obtained from the Ethical Review Committee of the Avicenna Medical College, Lahore.

RESULTS

Table -1 Gender

Valid	Frequency	%	Valid%	Cumulative%
Males	1600	76.9	76.9	76.9
Females	480	23.1	23.1	100.0
Total	2080	100.0	100.0	

A total of 2080 medico legal cases of road traffic accidents were recorded during the study period. Data were analyzed on using SPSS version 20. Road Traffic accidents results showed, in Table-1 out of 2080 cases males 1600 (76.9%) and 480 (23.1%) were females.

Table-2 Age groups of the Victims

Valid	Frequency	%	Valid%	Cumulative%
0-10yrs	150	7.2	7.2	7.2
11-20 yr	300	14.4	14.4	21.6
21-30yr	600	28.8	28.8	50.5
31-40yr	550	26.4	26.4	76.9
41-50yr	300	14.4	14.4	91.3
51-60yr	100	4.8	4.8	96.2
> 60yrs	80	3.8	3.8	100.0

Table 2 showed age groups of road traffic accident victims ranged from 0 to more than 60 years. The most frequent cases of road traffic accidents were found at the age of 21-30yrs, 600(28.8%) and 2nd

most common age group of 31-40yrs, 550(26.4%) , and in 3rd most common age groups were 11-20yrs and 41-50yrs containing 300 (14.4%) each. A very least age group were found More than 60yrs, which contained 80 (3.8%), and the 2nd least age group were 51-60yrs which contained 100(4.8%) which was followed by the age group from 0-10 yrs which contained 150(7.2%). In age group from 0-10yrs the minimum age of the child was 5yrs.

Table-3 Distribution of RTA victims

Valid	Frequency	%	Valid%	Cumulative%
Paedestrian	200	9.6	9.6	9.6
Front seat passengers	510	24.5	24.5	34.1
Rear seat passengers	720	34.6	34.6	68.8
Drivers	250	12.0	12.0	80.8
Motorcyclist	400	19.2	19.2	100.0
Total	2080	100.	100.0	

Table 3 showed the distribution in road traffic accidents the most common victims were Rear seat passengers 720(34.6%) , and the 2nd most common victims were Front seat passengers, 510(24.5%) and 3rd common victims were Motorcyclists 400(19.2%) found. A very least victims were Pedestrians 200(9.6%), which was followed by Drivers 250(12%) found. In all above distribution history of incidence showed the mostly accidents were happened while travelling through buses, mini buses, coasters, wagons, cars, jeeps and motor cycles.

Table-4 Month wise distribution of RTA

Valid	Frequency	%	Valid%	Cumulative%
January	100	4.8	4.8	4.8
Feb.	130	6.3	6.3	11.1
March	110	5.3	5.3	16.3
April	140	6.7	6.7	23.1
May	180	8.7	8.7	31.7
June	350	16.8	16.8	48.6
July	270	13.0	13.0	61.5
August	210	10.1	10.1	71.6
Sept.	170	8.2	8.2	79.8
October	160	7.7	7.7	87.5
Nov.	140	6.7	6.7	94.2
Dec.	120	5.8	5.8	100.0

Table 4 showed month wise admissions of road traffic accident patients admitted to emergency department of Sandman (Prov) hospital Quetta. A Highest percentage of admissions of RTA victims were seen in June 350(16.8%), 2nd highest percentage of RTA patients admissions were seen in July 270(13.0%), 3rd highest percentage of admissions of RTA patients were seen in August 210(10.1%). A very least no of admissions of RTA patients were seen during January 100(4.8%) followed by March 110(5.3%). Least number of admissions was seen in December 120 (5.8%), which was followed by April 140(6.7%).

DISCUSSION

The results of the present study revealed that 1600(76.9%) of the victims were males and the rest, 480 (23.1%), were females because males are more mobile due to going to work, studies etc. and so more prone to accident(14,15). Study in India showed in their results that males had significantly increased risk of transport injuries as compared to females⁹. They reported age to be an important risk factor for certain types of injury. They also found transport related injuries to be much common among adults, 15 years and above⁹. Another study showed 83% victims to be male and 17% female victims¹⁰. The highest number of victims (31.3%) was between 20-29 years of age (10). Similar results are also seen in our present study. RTAs are the leading cause of death among young people aged 15-29 years and cost the nations about 1-3% of their GDP⁵ i.e., \$518 billion in the year 2000¹¹. In our study we found the highest number of victims were seen 600(28.8%) in 21-30 years of age group, results of our study also supported by another studies in India^{12,13}. Road Traffic Accidents (R.T.A.) are the worst part of any accident, which has become universal due to traffic overload¹⁶. Entire world is emphasizing over the means to reduce R.T.A. to its minimum level¹⁷. Inadvertent drivers, especially young guys on motorbike are the important vulnerable groups to suffer from R.T.A. Traffic overload is the major contributing factor for R.T.A. Some people violate the traffic rules and regulations and ultimately get involved in RTA¹⁸. Hilly, tortuous and serpentine road is another factor for R.T.A¹⁹. This study had several limitations. Injury surveillance was performed only in selected tertiary care hospitals. It is possible that RTA injuries of a minor nature which occurred away from city centres were not accounted for. Therefore, we were unable to present overall injury rates and mortality rates in this district. Over, the outcome of injuries was based only on the information available in the A&E department and patients were not followed up due to the limited resources available for the study. Nevertheless, more detailed data about injuries was recorded in this study than are routinely available^{20,21}.

CONCLUSION

1. Males were more affected in R.T.A. as compared to females.
2. Strict implementation of traffic rules and regulations can be helpful to avoid R.T.A.

3. Better roads and proper education can reduce the incidence of RTA.

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