

Traffic rules: A cross-sectional study

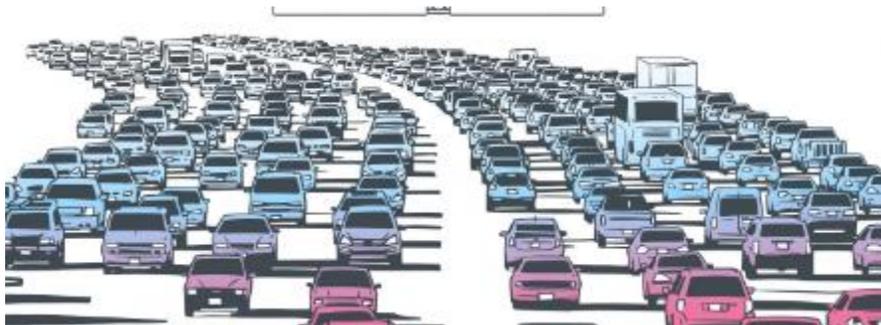
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Abstract: Road Traffic Accidents are one of the leading causes of morbidity & mortality in the world. The present study was based on the autopsy records of unnatural deaths occurred in a leading tertiary health care center of North West India. The adult road traffic fatalities constituted 41% of all unnatural deaths with male preponderance (89.6%) throughout the study period. People in the age group 21-30 years (32%) particularly from rural areas (57%) were most affected. The pedestrians and two wheeler users formed the majority of fatalities (78%). Collision between two wheeler and light motor vehicle was the most common crash pattern and injury to head & neck region was the most common cause of death. Maximum number of accidents occurred between 4pm to 8pm (28%) and in the month of November (11%). Unskilled workers, agricultural workers and government employees constituted a larger proportion of fatalities (45%).

Keywords: Accidents, Two-wheeler, Pedestrian, Crash pattern, Unnatural Death

Introduction: Road Traffic Accidents [1](RTA) have emerged as a new health challenge in the world which not only leads to injuries, disabilities and loss of precious human lives but also imparts a substantial economic burden on the family concerned and the nation as whole. RTAs are the eighth leading cause of death in the world and are expected to rise to the fifth position by the year 2030, if adequate measures are not taken. Road traffic[2] injuries [3]account for about 38 million disability-adjusted life years (DALYs) lost worldwide. In India one person dies every four minutes as a result [4]of RTAs. In order to implement preventive measures a detailed epidemiological data is inevitably required, but unfortunately a complete data is not available even in some of the developed nations like the United Kingdom and the New Zealand. This study aims to provide a baseline data on RTAs in North West India for the policy makers to plan the human habitation, implement preventive measures and to equip the health care institutions.



Materials and Methods: The study consisted of 1512 medicolegal autopsy performed in the Department of Forensic Medicine, Institute of Medical Sciences, Bangalore, Karnataka during the period of 3 calendar years (from 1st January, 2010 to 31st December, 2012). Out of total 1512 medico-legal autopsies, 225 were RTA victims (14.89%) Necessary information for the study was gathered from Police, inquest report [5] and dead body challan. Interviews of the relatives, friends, and neighbours of the victims were also taken separately to collect the data. In few cases adequate information could not be obtained and such cases were put under "Undetermined/ Unknown group". A detailed proforma for the purpose of recording history, epidemiological data and the details of injuries etc. was prepared for the filling observation of the present study. The information thus collected, was Statistical analysed.



Observations and Results: During this study period, 1512 cases were brought for post-mortem examination out of which 225 (14.89%) deaths were due to road traffic accidents.[6] The highest number of victims 124(55.11%) belonged to age group of 21-30 years. There were 92 (40.89%) male and 32 (14.22%) female casualties. Maximum sex differentiation was observed in the age group of 51-60 years with male and female ratio of 7:1 followed by 5.57:1 in 31-40 years age group. (Table 2) If we considered age group of 21-40 years, it showed more than 3/4th of total RTA victims (75.55%). greater number of accident cases 117(52%) were registered in the winter. Most of accidents 139 (61.78%) took place in city and 103 (45.78%) & 74(32.89%) victims were belong to urban and semi urban area respectively. It was noted that site of primary impact in most of the cases was to the side (46.22%). Present study showed that out of total 225 patients of RTA, 151(67.11%) was admitted in hospital for treatment. Amongst 151 victims, more than three-fourth of them underwent specific operative procedures (amputation, fracture reduction, ICD etc) and 18.54 % of the victims received general treatment. (Table 4) In this study, four wheeler vehicles such as buses, tempo, car etc caused more than two-third of accidents (68.44%) of the total cases. The second major killer was the two wheelers (19.56%). In 6 cases, the offending vehicle could not be identified but it was clear that the victims died due to RTA. The pedestrians were the worst sufferers. A total of 101 pedestrians were killed. The next common category was motorcyclists, which accounted for 42.67% of the cases. (Table 5) We observed that Injuries to two and more body regions (head, chest and limbs) were found in majority of cases (37.33%) followed by head injury 30.22% of the total number of cases. The cause of death was opined to be haemorrhagic shock in 142 cases (63.11%), followed by head injury in (30.22%).

References:

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