Original Article

Trends of road traffic incident cases brought for medicolegal autopsy at Jorhat Medical College and Hospital, Jorhat, Assam

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Abstract

With the increase in the number of vehicles and their use in various spheres of day to day activities there has been a massive bonding between man and vehicle which has also led to conflicts in the form of accidents causing loss of precious human life. The present study is based on retrospective analysis of 143 deaths due to road traffic incidents out of 552 autopsies in a one year period (1st January 2015 to 31st December 2015) done in the Department of Forensic Medicine, Jorhat Medical College and Hospital, Jorhat, Assam to determine the varying trends of fatal injuries which have caused death. The present study reflects the following facts, males outnumbered the females, head injury was the leading cause of death followed by haemorrhage and shock due to visceral injuries and fractures.

Key Word: Vehicle, road traffic incident, head injury

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INTRODUCTION

Road traffic incidents are a major public health concern causing many injuries and premature loss of lives each year. The problem is sosevere that by 2020, it is projected that road traffic disability life years will move from being the 9th leading cause to 3rd cause in developed countries and 2nd leading cause in developing nations. The present study was conducted to ascertain the incidence of fatal road traffic incidents and pattern of injuries which lead to death of cases brought for medicolegal autopsy at the Department of Forensic Medicine, Jorhat Medical College and Hospital, Jorhat, Assam.

MATERIAL AND METHODS

In the present study out of 552 autopsies during 1st January 2015 to 31st December 2015, 143 cases were of road traffic incident cases. The detailed analysis of these cases was based on inquest report, medical records and evaluation of autopsy reports. A detailed proforma was prepared for recording the various parameters and compared with other standard data and research publications.

OBSERVATIONS

Out of 552 medicolegal autopsies conducted during the study period, 143 (25.91%) were road traffic incident cases. Males comprised 128(89.51%) of total fatalities, while females accounted for 15 (10.48%) cases with a male: female ratio of 8.5:1.Most common age group was between 21 to 30 years 40 (27.97%) out of 143 cases of road traffic accidents. Maximum number of the victims were pedestrains 58(40.56%) followed by occupants of four wheeler vehicles 49 (34.26%) and riders of two wheelers 36(25.17%). 77 (53.84%) victims were brought to the hospital and declared dead within one hour followed by 66(46.15%) victims died on the spot at accident site. Head injuries were the leading cause of death was noted in 96 (67.13%) cases followed by

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haemorrhage and shock due to visceral and other injuries in 47(32.87%) cases. Subdural haemorrhage was noted in 68(70.83%) cases followed subarachnoid haemorrhage in 20(20.83%) cases and extradural haemorrhage in 8(8.33%) cases. Skull bones fracture was seen in 52 (54.16%) cases followed by rib fracture in 22(22.91%) cases. Liver and lung laceration was found in 42 (89.36%) followed by injury to spleen 5(10.64%) out of 47 visceral injury cases. Most of the road traffic incidents occured during the winter months than compared to other months of the year.

DISCUSSION

Accidents can be considered as a side effect of modernization and fast life. Increased urbanization and industrialization with inadequate traffic control has increased in the rate of vehicular incidents. In the present study majority of the deceased were males (89.51%) which has been found by many other researchers[4,6] suggest the fact that males are more active in various social activities, also many of whom may be the sole bread earners of the family. The age group 21 to 30(27.97%) years was the most common age group involved as because this is the most active phase of human life both physically and socially hence surpassing the other age groups in outdoor life which is similar to Hetal *et al*[1] In our study pedestrains were most commonly affected which is similar with Pathak *et al*[2], Sharma *et al*[3] which can be explained by the fact that carelessness on part of the pedestrains and divers due to not using zebra crossing and disobeying traffic signals. Head injury (67.13%) associated with subdural haemorrhage (70.83%) was the most common cause of death in our study which is similar to Hetal *et al*[1] explains the fact that head is the vital body part which is exposed and may be injured by both primary and secondary impact.

CONCLUSION

This study reflected the fact that RTAs were more common in the male sex and younger age group. Majority of the victims being pedestrains. Higher incidence of brought dead cases than on the spot death cases was noted. Head injury associated with subdural haemorrhage was the most common cause of death. Many contributory fators like mechanical defects in vehicles, bad roads, bad weather, over speeding, not using seat belts, helmets and abuse of alcohol are some ingition points of road traffic incidents which needs to be modified urgently and call of the hour for both the state and the society to prevent loss of valuable human resources.

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