

Road traffic accidents and preventive measures

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Abstract

Injuries due to road traffic accidents are one of most common cause of death and disability. Present study was carried out at CPR Hospital of RCSM GMC Kolhapur, Maharashtra during period of January 2003 to December 2006. During this period 163 cases of road traffic accidents were studied. All this cases were directly brought for the postmortem examination. Most of cases were from younger age group of 21—30 years. Study showed male predominance.

Key Word: words-road traffic accidents, motor cycle riders, preventive measures

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INTRODUCTION

In last 100 years growth in transport system has increased tremendously. Nowadays due to increased purchase capacity of masses and easy availability of vehicle loans large number of people are having personal vehicles and also there is poor implementation of traffic rules. This results increases in incidence of road traffic accidents. According to WHO report 25% of deaths occurs due to accidents all over world. In India nearly 80000 are killed and 340,000 are injured in 300,000 accidents every years Road traffic accidents causes complex injuries like abrasion, contusion, laceration, fractures and injury to vital organs resulting in death and disabilities. Incidence of road traffic accidents can be reduced by using safety measure like helmet, sit belt air bags and following traffic rule, avoiding drunk driving and avoiding negligent and fast driving.

MATERIAL AND METHODS

Total 163 cases of road traffic accidents were studied during the period of January 2003 to December 2006. All these cases were directly brought for postmortem examination from site of accident. Meticulous postmortem examination was done. All information about circumstances of accident were noted from police inquest and record and the history from relative with dead bodies. Pattern of injuries, features of injury and fatal injuries were noted and all data collected and analyzed statistically. Evidence of intoxication was noted in suspicious cases and blood sample was analyzed for presence of alcohol. Mobile phones were specially scrutinized for weather person was using mobile phone while riding and driving

OBSERVATION AND RESULTS

Total 163 cases of road traffic accidents were studied at mortuary of CPR hospital of RCSM GMC Kolhapur during period of January 2003 to December 2006. All these cases were directly brought for postmortem examination from site of accident. Incidence of road traffic accident was maximum in age group of 21-30 years 71(43.55%) followed by 31-40 years 29(17.79%) cases. Incidence of RTA was minimum in age group of 51-60 years 7(4.29%) cases Incidence of RTA was showed male predominance. Incidence of RTA was high in males 116 (71.16%) cases and low in females 47(28.83%) cases. In most of cases females were victim of negligent and high speed motor cycle riders. High speed, negligent and drunken driving was not reported

among females, however these were most common causes of RTA among males. RTA was reported most commonly among motor cycle riders 44(26.99%), followed by pedestrian 43(26.38%), cyclist 27(16.56%) and four wheeler drivers 21 (12.88%), four wheeler passengers 19 (11.65%), heavy four wheeler drivers and passengers 9 (5.59%). Cause of accident among motor cycle riders were high speed driving, negligent driving, drunken driving, using mobile and head phone while driving. Pedestrians were victims of most commonly of victims of motor cycle riders and four wheeler drivers. Cyclist were also victims of motor cycle riders and four wheeler drivers. Most of four wheeler drivers under gone RTA during night time. This was due to no using deeper signals at night time. Another common cause of RTA for four wheeler drivers was head on collision with opposite vehicle while overtaking front vehicle. In most of cases cause of death was hemorrhage and shock 58 (35.58%). Other causes of death were cranial injuries 32(19.63%), crush injury to vital organs 18 (11.04%), injury to heart 8 (4.90%), injury to heart and lung 12(7.36%), injury to liver 9 (5.52%) , injury to liver, spleen and kidney 26(15.95%).

Table 1: Profile of victim according to age and sex

Age	Male	Female	Total
01-10	8(4.90%)	4 (2.45%)	12 (7.36%)
11-20	17(10.42%)	10(6.13%)	27 (16.56%)
21-30	52(31.90%)	19(11.65%)	71(43.55%)
31-40	22(13.44%)	7 (4.29%)	29 (17.79%)
41-50	12(7.6%)	5 (3.06%)	17 (10.42%)
51-60	5(3.06%)	2(1.22%)	7 (4.29%)
>60	0	0	0
Total	116(71.16%)	47(28.83%)	163 (100%)

Table 2: Pattern of RTA according to victim profile

Victims	No. of cases.	Percentage
Pedestrian	43	(26.38%)
Motor cycle riders	44	(26.99%)
Cyclist	27	(16.56%)
Four wheeler drivers	21	(12.88%)
Four wheeler passengers	19	(11.65%)
Heavy four wheeler driver and passengers	9	(5.52%)
Total	163	100%

Table 3: Pattern of RTA according to cause of accident

Cause of accident	Number of cases.	Percentage
Intoxication	32	(19.63%)
Using mobile while driving	14	(8.48%)
Using head phone while driving	16	(9.81%)
High speed	48	(29.44%)
Negligent driving	53	(32.51%)
Total	163	100%

Table 4: Pattern of RTA according to cause of death

Cause of death.	Number of cases	Percentage.
Hemorrhage and shock	58	35.58%
Cranio cerebral injury	32	19.63
Crush injury to vital organ	18	11.04
Injury to heart	8	4.90
Injury to heart and lung	12	7.36%
Injury to liver	9	5.52
Injury to liver, spleen and kidney	26	15.95
Total	163	100%

Table 5: Pattern of injury according to site of body involved.

Site of body involved	Fracture	CLW	Abrasion	Crush injury
Thorax.	28 (15.4%)	78(27.85%)	91 (20.82%)	7 (18.91%)
Abdomen	0	52(18.57%)	82(18.76%)	82(18.62%)
Back	0	18(6.42%)	81(18.57%)	0
Upper arm	58 (31.52%)	51(18.21%)	84(19.22%)	8(21.62%)
Lower arm	81(44.02%)	53(18.92%)	81(18.57%)	13(35.13%)
Head neck and face	17 (9.23%)	28(10%)	18(4.11%)	1(2.70%)
Total	184 (100%)	280(100%)	437(100%)	37(100%)

DISCUSSION

Total 163 cases of RTA were studied at mortuary of CPR Hospital of RCSM GMC Kolhapur during period of January 2003 to December 2006. In present study male predominance (71.61%) was observed. Similar findings were observed by other authors like Dhatarwal *et al* and Pradipkumar Singh *et al*. In present study RTA was among younger age group of 21-30 years. Similar findings were observed by Harnam Singh *et al*. RTA was most common among motor cycle riders (26.99%) followed by pedestrians (26.38%). Similar findings were observed by Kirti Jaiswal *et al*. Most of four wheeler RTA were occurred at night due to not using deeper signal at and due to collision of opposite vehicle while overtaking. Similar finding were observed by Dhatarwal *et al*. Females motor cycle riders were victims of high speed male motor cycle riders and four wheeler drivers. High speed and drunk driving was not observed in females. Similar findings were observed by Kirti Jaiswal *et al*. In most of cases cause of death was hemorrhage shock (35.58%) followed by cranial injuries (19.63%) cases. Similar findings were observed by Pradipkumar Singh *et al*.

SUMMARY AND CONCLUSION

In present study incidence of RTA was most common in age group of 21-30 years. Study showed male predominance. Incidence of RTA was most common among motor cycle riders followed by pedestrians. The main cause of RTA was high speed and negligent driving. The most common cause of death was

hemorrhage and shock Preventive measures RTA can be prevented by various safety measures ie using helmet for both motor cycle riders and passengers. Safety belt and air bag for both four wheeler drivers and passengers. Negligent, high speed and drunken driving should be avoided. Four wheeler drivers should be motivated for using deeper at night. Pedestrian should be motivated for using foot path. The traffic rules should be followed by everyone.

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