Volume : 5 | Issue : 6 | June 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

Research Paper

A Study of Changes in Pattern of Road Traffic Accidents in and Around Bhagalpur in First Month After Complete Prohibition of Liquor in Bihar

Medical Science

KEYWORDS : Road traffic accidents. Trauma. Injury. Fatalities

Dr. Hemant Kumar Das — Senior Resident, Department of surgery, Jawaharlal Nehru, Medical College and Hospital, Bhagalpur, Bihar- 812001

Dr. Hari Shankar Prasad — Senior resident Department of surgery, Jawaharlal Nehru Medical College and Hospital Bhagalpur, Bihar-812001

ABSTRACT

The aim and objective of this study is to show decrease in the number of road traffic accidents following complete ban on alcohol in Bihar. This study was conducted in Jawaharlal Nehru Medical College and Hospital, Bhagalpur, Bihar. This article highlights that drunken driving is one of the major cause of road accidents. On 5th April 2016 alcohol was totally banned in Bihar. In our study of 30 days from 6th April 2016 to 5th May 2016 total number of road traffic accidents were 85 compared to 167 in the previous month. It clearly indicates that drunken driving is a major human factor of road traffic accidents.

INTRODUCTION: A road traffic accident can be defined as, `An event that occurs on a way or street open to public traffic; resulting in one or more persons being injured or killed, where at least one moving vehicle is involved. They involve high human suffering and socioeconomic costs in terms of premature deaths, injuries, loss of productivity, and so on. Ninety one percent of the worlds fatalities on the roads occur in low income and middle income countries. If no action is taken; road traffic crashes are predicted to result in the death of around 1.9 million people annually by 2020.

In India, the motor vehicle population is growing at a faster rate than the economic and population growth. According to WHO, road traffic injuries are the sixth leading cause of death in India with a greater share of hospitalization, deaths, disabilities and socioeconomic losses in the young and middle aged population. The proportion of fatal accidents on the total road accidents has consistently increased since 2002 from 18.1 to 24.4 percent in 2011. The severioty of road accidents measured in term of persons killed per 100 accidents has also increased from 20.8 in 2002 to 28.6 in 2011. There has been more than a threefold increase in the number of persons injured per lakh of population from 13 in 1970 to 42.3 in 2011, while persons killed per lakh of population increased fourfold from 2.7 in 1970 to 11.8 in 2011.

MATERIAL AND METHOD : The study was conducted in Jawaharlal Nehru Medical College and Hospital Bhagalpur, Bihar. Data collection commenced on 6th April 2016 and continued till 5th May 2016. The data was collected from the emergency register and data center as well. The patients of all age groups presenting with trauma caused by road traffic accidents were included.

All the patients were admitted in the emergency. The patients brought in dead were not included in our data. A retrospective study of patients admitted in the previous month (6th March to 5th April 2016) are included in this study.

RESULTS: A total of 85 patients were admitted in the emergency from 6th April 2016 to 5th May 2016.Among these 85 patients, 74 (87.05%) were male while 11 (12.94%) were female. In the previous month (6th March to 5th April 2016) total patients admitted were 167 ,out of which 157 (94%) were male and 10 (5.98%) were female. Majority of them were conveyed by private vehicles ,only few were brought by either Ambulance or Police. In our study of 85 patients ,most common age group was between 21 to 30 years (32 patients) followed by 11 to 20 years(21 patients) and 41 to 50 years (12 patients).

Table 1 :Road Traffic Accidents in different age groups.

Age group in years.	From 6th April to 5th May 2016.	From 6th March to 5th April 2016.
Up to 1 year	0	2
1 year to 10 year	2	11
11 year to 20 year	21	46
21 year to 30 year	32	56
31 year to 40 year	12	28
41 year to 50 year	7	11
51 year to 60 year	7	8
61 year to 70 year	3	4
71 year to 80 year	0	1
81 year to 90 year	1	0
91 year to 100 year	0	0
Total	85	167

DISCUSSION: Worlds first RTA is suppose to have occurred in 1896. Everybody concerned at that time reported to have said, "this should never happen again."But more than a century later, 1.2 million people were killed on roads every year and up to 50 million more are injured. RTA survivors, their families, friends, and other care givers often suffer adverse social, physical, and psychological effects. If the current trends continue, the number of people killed and injured on the worlds roads will rise by more than 60% by 2020.

Drunken driving is one of the major human factors causing road accidents. The statistics also show that most of the road accidents in the highways are due to drunken driving only. Globally, some 480,000 deaths and 20 million of people get injured by drunken driving every year. In most high – income countries about 20% of fatally injured drivers have access alcohol in their blood, i.e., blood alcohol concentration (BAC) in excess of the legal limit. In contrast, studies in low – and middle income countries like India have shown that between 33% and 69% of fatally injured drivers and between 8% and 29% of nonfatally injured drivers had consumed alcohol before their crash.

In India, drunken driving is customary in commercial vehicle drivers. Private car owners and youngsters are also major players in the game. Small bars along the Indian highways are of prime concern to control drunken driving. India has laws to check the drunken driving but its effective implementation is still to be worked upon. In Bangalore, 28% of crashes involving males over 15 years were attributable to alcohol. Drunken driving has been responsible for 70% of road fatalities in Mumbai and Delhi.

During the calendar year 2012, Tamil Nadu has reported the maximum number of road accidents (67,757) accounting for 15.4% of such accidents in the country. Although Maharashtra

Volume : 5 | Issue : 6 | June 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

had the highest number of registered vehicles in the country, the highest number of deaths due to road accidents during the years were reported in Tamil Nadu (11.6%) followed by Uttar Pradesh (10.9%), Andhra Pradesh (10.8%) and Maharashtra (10.0%). The rate of accidental deaths per thousand vehicles was highest in Bihar and West Bengal at 1.9 each followed by Himachal Pradesh (1.8), Andhra Pradesh (1.5) and Jammu and Kashmir (1.5) as compared to 1.0 at the national level.

CONCLUSION: From our study it is evident that alcohol is a major human factor causing road traffic accidents. In Bhagalpur, Bihar the total number of road traffic accidents has markedly reduced after complete ban of alcohol. In our study of 30 days of duration the total number of RTA has come down to 85 after complete prohibition of liquor in Bihar as compare to 167 in the previous month.

Road deaths and injuries are preventable. Apart from other factor like vehicles and condition of the roads, human factors contribute a lot to rod traffic accidents. Among the human factor drunken driving is a major fact to be concerned. The statistics show that most of the RTA in highways are due to drunken driving only.

In many parts of India drunken driving is customary in commercial vehicle drivers. Small bars along the highways are of prime concern to control drunken driving. India has laws to check the drunken driving but its effective implementation is still to be worked upon. So it can be concluded that once law is effectively implemented as it is done in Bihar, drunken driving can be controlled.

REFERENCES:

1. Krug EG, Sharma GK, Lozano R (2000) The global burden of injuries. Am Public Health 90(4):523-526
2. World Health Organisation (2004) World report on road traffic injury prevention . (www.who.int/world - health - day /2004/ infomaterials/world report/en.
3. Roudsari BS, Nathens AB, Areolla-Risa C et al (2007) Emergency Medical Services (EMS) in developed and developing countries. Injur Int J Care Injur 38:1001-1013.
4. Transport Research Wing, Ministry of Road Transport and Highways. Status paper on road safety in India 2010 . New Delhi: Ministry of Road Transport and Highways, Government of India; 2010.
5. National Crimes Records Bureau. Accidental Deaths and Suicides in India 2012. New Delhi : Ministry of Home Affairs, Government of India; 2013.
6. Mohan D. Road Accidents in India. IATSS Res 2009;33:75-9.
7. Gururaj G. Road traffic deaths, injuries and disabilities in India: current scenario. Natl Med J India 2008;21:14-20.
8. Khan MK, Hanif SA, Hussain M, Huda MF , Sabri I. Pattern of non-fatal head injury in adult cases reported at J.N.M.C. Hospital, A.M.U, Aligarh. Indian Acad Forensic Med 2011;33:21-3.
9. Dandona R, Kumar GA, Raj TS, Dandona L. Patterns of road traffic injuries in a vulnerable population in Hyderabad, India. Inj Prev 2006;12:183-8.
10. Gopal Krishnan A Public Health Perspective of Road Traffic Accidents, J Family Med Prime Care. 2012 July-December; 1(2) : 144-150.
11. Verma PK, Tewari KN. Epidemiology of road traffic injuries in Delhi: Result of a survey. Regional Health Forum WHO South-East Asia Region 2004;8.
12. Shrinivas PL. Studies undertaken to identify critical causes of accidents in the highways of Tamil Nadu. Indian Highways 2004;31:11-22.
13. Jha N. Srinivasa DK ,Roy G, Jagdish S injury pattern among road traffic accident cases: A study from south India. Indian J Community Med 2003;28:85-90.
14. Varghese M, Mohan D. Transportation Injuries in rural Haryana, North India. In :Proceedings of the International Conference on Traffic Safety. New Delhi: Macmillan India 2003;P.326-9.
15. Gururaj G. Epedemiology of road accidents and head injuries in Bangalore. Bangalore: National Institute of Mental Health & Neuro Sciences 2001.
16. Borse NN Hyder AA. Call for more research on injury from the developing world: Results of a Bibliometric Analysis. Indian J Med Res 2009;129:321-6.