



A STUDY OF CHANGES IN PATTERN OF ROAD TRAFFIC ACCIDENTS DURING COVID-19 IN AND AROUND MUZAFFARPUR, BIHAR

General Surgery

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ABSTRACT

The aim and objective of this study is to show decline in road traffic accidents, fatality and injuries during Covid-19 in the central Bihar. This study was conducted in Shri Krishna Medical College and Hospital, Muzaffarpur, Bihar. This article highlights that there was sharp decline in the cases of road traffic accidents during lockdown period in Muzaffarpur, Bihar. Due to complete lockdown and stricter rules there was decline in traffic accidents. In our study of 60 days from 24th March 2020 to 24th May 2020, total numbers of road traffic accidents were 87 compared to 347 in the previous month.

KEYWORDS

Road traffic accidents, trauma, injury, covid-19, pandemic, lockdown.

INTRODUCTION-

Road traffic accidents has been major bulk of admission in emergency since long. According to Global burden of Disease report 2017, the prevalence of road traffic accidents among male and female was found to be 13.7 million and 9.7 million respectively per year. 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. In developing country like India the major cause of injuries were found to be road traffic accidents, fall from height and assault.

In India, the motor vehicle population is growing at 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.

In 2020 whole world started facing a new pandemic of 21st century, the Corona virus called Covid-19. The virus first appeared in Wuhan city of China on 31st December 2019 and quickly spread all over the world. By March 2020 Covid-19 had hit almost all country across the globe including India. To overcome the pandemic India imposed complete lockdown on 24th March 2020 which continued till last month of May 2020.

MATERIAL AND METHOD-

The study was conducted in Shri Krishna Medical College and Hospital Muzaffarpur, Bihar. Data collection commenced from 24th March 2020 and continued till 24th May 2020.

The data collected from emergency registration counter and central data center as well. The patients of all age groups presenting with road traffic accidents were included. All the patients were admitted in the emergency. The patients brought dead were not included in our data. A retrospective study of patients admitted in the previous month (23 January 2020 to 23 March 2020) are included in this study. Ethical approval for this study was taken from Institute Ethics Committee. The collected data was kept confidential and was used only for research purposes.

RESULTS-

The hospital based study was carried out to explore the pattern of injury over a period of previous two months (23 January 2020 to 23 March 2020) corresponding the Covid-19 lockdown period from 24 March 2020 to 24 May 2020. A total of 87 patients were admitted in the emergency from 24th March to 24th May 2020. Among 87 patients, more common age groups were between 21 to 30 years (34 patients) followed by 11 to 20 years (21 patients) and 41 to 50 years (8 patients). In the previous two month total patients admitted were 347. Majority of the patients were conveyed by ambulance, only few brought by either private vehicles or police. From the above mentioned data it can be clearly interpreted that the proportion of road traffic accidents significantly reduced during lockdown period of two months in 2020.

Table 1: Road traffic accidents in different age groups.

Age group in years	From 23 rd January to 23 rd March 2020	From 24th March to 24 th May 2020
Upto 1 year	6	0
1-10 year	23	2
11-20 year	91	21
21-30 year	113	34
31-40 year	58	12
41-50 year	30	8
51-60 year	15	6
61-70 year	9	2
71-80 year	1	1
81-90 year	1	0
91-100 year	0	1
Total	347	87

DISCUSSION-

Road traffic accidents is a major cause of death and disability in our country. In spite of all the strict law and stringent measures taken by the government there is steep rise in road traffic accidents every year. Road traffic accidents survivors, their friends and other care givers often suffer adverse social, physical and psychological effects. Although Maharashtra had the highest number of registered vehicles in the country, the highest number of deaths were reported in Tamil Nadu (11.65%) followed by Uttar Pradesh (10.9%), Andhra Pradesh (10.8%) and Maharashtra (10%). The rate of accidental deaths per thousand vehicle was highest in Bihar and West Bengal 1.9 each followed by Himachal Pradesh (1.8), Andhra Pradesh (1.5) and Jammu Kashmir (1.5) as compared to 1.0 at the national level. If the current trends continue, the number of people killed will surpass any other disease in a given time period in the world.

In response to sharp increase in Covid-19 cases, India imposed strict lockdown on 24th March 2020. This lockdown led to travel restriction, closure of school and nonessential services. Following these restrictions there was sharp decline in injuries and death due to road traffic accidents. It came down to almost 24 percent compared to previous month accidents. This decline in number of injuries and death helped hospitals to cope with this pandemic more effectively by freeing up their resources.

CONCLUSION-

From our study it is evident that during lockdown the number of road traffic accidents reduced much compared to previous month. In Muzaffarpur, Bihar the total number of road traffic accidents markedly reduced after complete lockdown. In our study of 60 days duration the total number of traffic accidents reduced to 87 compared to 347 in the previous month. Although at the same time the cases of domestic violence increased.

It can be concluded that number of traffic accidents is directly

proportional to number of vehicles moving on the road. We as a responsible citizen of India must understand that if it is our right to run vehicle on the road it is also our duty to follow traffic rule. In Bihar, people usually youngsters don't wear helmet while riding vehicle so we get more cases of serious head injury following traffic accidents. Youngsters are major players in the game and so is the sufferer too.

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