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Assessment of incidence of post-traumatic stress disorder among patients with history of road traffic accident

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Abstract

Background: Road traffic injuries (RTIs) are the leading cause of unintentional injuries, accounting for the greatest proportion of deaths from unintentional injuries. Hence; the present study was undertaken for assessing the incidence of post-traumatic stress disorder among patients with history of road traffic accident.

Materials and Methods: A total of 50 patients with history of road traffic accident were enrolled. A Performa was made and complete history was taken for obtaining information pertaining to demographic and clinical details. Psychiatric assessment of the patients was done for assessing the psychiatric illness and incidence of post-traumatic stress disorder. Also patients with history of presence of any malignant neoplasm were excluded. All the results were recorded and analysed by SPSS software.

Results: Out of 50 patients enrolled, psychiatric illness was present in 42 percent of the patients. Among these 42 patients with psychiatric illness, 47.62 percent of the patients had post-traumatic stress disorder, 28.57 percent of the patients had anxiety and the remaining 23.81 percent of the patients had depressive disorder.

Conclusion: Post-traumatic stress disorder is significant prevalent among patients with history of road traffic accident.

Keywords: road traffic accident, trauma

Introduction

Road traffic injuries (RTIs) are the leading cause of unintentional injuries, accounting for the greatest proportion of deaths from unintentional injuries. They are the leading cause of injury-related disability-adjusted life years (DALYs), and they pose a significant economic and societal burden. Despite this burden, RTIs remain a largely neglected public health problem, especially in low- and middle-income countries (LMICs), where urbanization and motorization are rapidly increasing^[1-3].

Differing opinions have been expressed on whether physically ill or mentally ill drivers have higher than expected rates of road traffic accidents or more frequent violations of traffic rules than healthy drivers. As far as physical illness is concerned, the contribution of acute disorders in the shape of sudden death or losses of consciousness appears to be small. On the other hand, another group of authors claimed that certain groups of physically impaired drivers had twice the accident rates of the allegedly healthy. In the absence of well-matched control samples it is difficult to say whether these findings are correct. Compared with studies on the effects of physical illness, the findings with respect to psychiatric disorder are fewer in number and often show conflicting results^[4-6]. Hence; the present study was undertaken for assessing the incidence of post-traumatic stress disorder among patients with history of road traffic accident.

Materials and Methods

The present study was undertaken for assessing the incidence of post-traumatic stress disorder among patients with history of road traffic accident. A total of 50 patients with history of road traffic accident were enrolled. A Performa was made and complete history was taken for obtaining information pertaining to demographic and clinical details. Psychiatric assessment of the patients was done for assessing the psychiatric illness and

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incidence of post-traumatic stress disorder. Patients with history of any other systemic illness or any known drug allergy were excluded from the present study. Also patients with history of presence of any malignant neoplasm were excluded. All the results were recorded and analysed by SPSS software.

Results

Out of 50 patients enrolled, psychiatric illness was present in 42 percent of the patients. Among these 42 patients with psychiatric illness, 47.62 percent of the patients had post-traumatic stress disorder, 28.57 percent of the patients had anxiety and the remaining 23.81 percent of the patients had depressive disorder. Out of 21 patients with psychiatric illness, 12 patients were of less than 40 years of age while the remaining 9 patients were of more than 40 years of age. Out of 21 patients with psychiatric illness, 13 were males

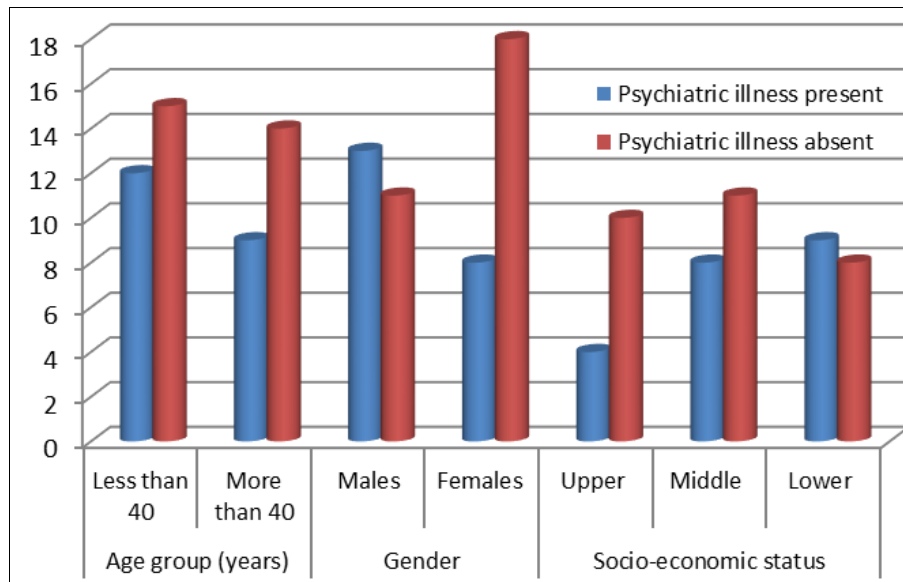
while the remaining 8 patients were females. Majority of the patients with psychiatric illness were of lower class.

Table 1: Incidence of psychiatric illness among patients with history of road traffic accident

Psychiatric illness	Number of patients	Percentage
Present	21	42
Absent	29	58
Total	50	100

Table 2: Spectrum of psychiatric illness

Spectrum of Psychiatric illness	Number of patients	Percentage
Post-traumatic stress disorder	10	47.62
Anxiety	6	28.57
Depressive disorder	5	23.81



Graph 1: Demographic profile of the patients with psychiatric illness

Discussion

Motorization has enhanced the lives of many individuals and societies, but the benefits have come with a price. Although the number of lives lost in road accidents in high-income countries indicate a downward trend in recent decades, for most of the world's population, the burden of road-traffic injury—in terms of societal and economic costs—is rising substantially. Injury and deaths due to road traffic accidents (RTA) are a major public health problem in developing countries where more than 85% of all deaths and 90% of disability-adjusted life years were lost from road traffic injuries. As a developing country, India is no exception. Not a day passes without RTA happening in the roads in India in which countless number of people are killed or disabled. Often members of the whole family are wiped out. Those who are affected or killed are mostly people in their prime productive age. The highest burden of injuries and fatalities is borne disproportionately by poor people, as they are mostly pedestrians, cyclists, and passengers of buses and minibuses [6-9]. Hence; the present study was undertaken for assessing the incidence of post-traumatic stress disorder among patients with history of road traffic accident.

In the present study, out of 50 patients enrolled, psychiatric illness was present in 42 percent of the patients. Among

these 42 patients with psychiatric illness, 47.62 percent of the patients had post-traumatic stress disorder, 28.57 percent of the patients had anxiety and the remaining 23.81 percent of the patients had depressive disorder. Kovacevic J *et al.* investigate the psychological consequences and associated factors in all RTA survivors, irrelevant of their injury status. A cohort of 155 people was assessed one month after experiencing a RTA using self-reported measures for posttraumatic stress disorder (PTSD), depression, and anxiety. Associations between mental health outcomes and sociodemographic factors, pre-RTA health status, injury-related factors, and RTA details were analyzed. RTA survivors reported substantial rates of PTSD (32.3%) and depression (17.4%) symptoms, and low rates of anxiety (5.8%). Symptoms of depression were associated with below-average self-perceived economic status, irreligiousness, medication use, psychiatric medication use, and injury-related factors. PTSD symptoms were associated with female gender, below-average self-perceived economic status, previous psychiatric illness, and medication use, psychiatric medication use, not being at fault in the relevant RTA, claiming compensation, and injury-related factors. Anxiety symptoms were associated with previous chronic or psychiatric illness, previous permanent pain, psychiatric medication use, and self-perceived threat to life, but not

with sustaining injury^[10].

In the present study, out of 21 patients with psychiatric illness, 12 patients were of less than 40 years of age while the remaining 9 patients were of more than 40 years of age. Out of 21 patients with psychiatric illness, 13 were males while the remaining 8 patients were females. Majority of the patients with psychiatric illness were of lower class. Mayou R *et al.* determined the psychiatric consequences of being a road traffic accident victim. 188 consecutive road accident victims aged 18-70 with multiple injuries (motorcycle or car) or whiplash neck injury, who had not been unconscious for more than 15 minutes, and who lived in the catchment area. Acute, moderately severe emotional distress was common. Almost one fifth of subjects, however, suffered from an acute stress syndrome characterised by mood disturbance and horrific memories of the accident. Anxiety and depression usually improved over the 12 months, though one tenth of patients had mood disorders at one year. In addition, specific post-traumatic symptoms were common. Post-traumatic stress disorder occurred during follow up in one tenth of patients, and phobic travel anxiety as a driver or passenger was more common and frequently disabling. Emotional disorder was associated with having pre-accident psychological or social problems and, in patients with multiple injuries, continuing medical complications. Post-traumatic syndromes were not associated with a neurotic predisposition but were strongly associated with horrific memories of the accident. They did not occur in subjects who had been briefly unconscious and were amnesic for the accident. Mental state at three months was highly predictive of mental state at one year^[11].

Conclusion

Post-traumatic stress disorder is significant prevalent among patients with history of road traffic accident.

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