

Psychoactive Substance Use Among Trauma Victims: A Preliminary Study

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Date received: 1/8/2008

Date accepted: 4/10/2008

Background: Psychoactive substance use has been linked to trauma. The present work has been done in our community to determine prospectively psychoactive substance use in 92 trauma victims (58.7% car drivers, 13% pedestrians, 10.9% bicyclists, and 17.4% victims of other forms of trauma).

Subjects & Methods: All were admitted directly from the scene of injury, screened for some psychoactive substances in urine samples, and interviewed for psychoactive substance use. A total of 42 out of 92 samples (45.65%) were screen-positive.

Results: The prevalence of positive screens among car drivers was 48.1%, among pedestrians was 33.3%, among bicyclists was 60%, and among victims of other types of trauma was 37.5%. Out of total of 42 screen-positive samples, 10 samples (23.81%) were positive for a single drug, 26 samples (61.9%) were positive for two drugs, and 6 samples (14.29%) were positive for three drugs. The samples were positive for cannabinoids, opiates, ethanol, benzodiazepines, and

barbiturates. Cannabinoids, opiates, ethanol and, benzodiazepines were the most frequently encountered substances. Patients psychiatric interview revealed that all the screen-positive victims had a history of current use of substances detected in urine, and some screen-negative victims had a history of current use of cannabis and benzodiazepines. In addition, victims from both groups had a history of current use of nicotine (Smoking) and other substances as benzhexol (Parkinol) and some over-the-counter preparations. 36 victims (39.13% of total) had the criteria items of substance abuse, 18 victims (19.6% of total) had the criteria items of dependence on substances other than nicotine, and 50 victims (54.4% of total) had the criteria items of dependence on substances including nicotine.

Conclusion: These data are to be considered in determining legal responsibility, and in planning strategies, aiming at the prevention of substance related injuries.

Keywords: Trauma victims, Psychoactive substance, Substance use, Preliminary study.

Abbreviations:

DSM IV: *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition.

Egypt. J. Psychiatry, June 2009; 29(2): 31-37

INTRODUCTION

Trauma is an inevitable event in modern life, causing significant morbidity and mortality among the victims. There is a growing interest in investigating the etiology, contributing factors, and circumstances of trauma with the aim to find out suitable preventive measures.

Drug use has been implicated as a contributing factor to nearly all types of trauma including vehicular accidents (In cars, planes, boats, and trains), head injury, injury from falling, electrocution, and drowning (Sloan, et al. 1989, and Senay, 1991). In fact, drug use has been reported in a significant proportion of trauma victims all over the world (Rivara, et al. 1989; Kirby, et al. 1992; Rivara, et al. 1993; Li, et al. 1997; Borges, et al. 2004; and Blondell, et al. 2005).

In our community, there is a growing concern about the increasing incidence of traumatic injuries particularly road traffic injuries. It is an urgent need to investigate the causes and possible predisposing factors for such

injuries. The documentation and characterization of the presence of substance use in association with different forms of trauma is worthwhile. The present study aims at preliminary determination of the prevalence of psychoactive substance use in victims of vehicular trauma (Including drivers, pedestrians, and bicyclists), and non-vehicular trauma (Unintentional trauma & assault) presented to Mansoura Emergency Hospital from January 2006 through February 2007. This may be useful for legal purposes and for the prevention or reduction of psychoactive substance-related trauma.

PATIENTS AND METHODS

The potential study candidates were trauma victims who were admitted directly from the scene of injury to Mansoura Emergency Hospital, including car drivers (In particular), pedestrians, bicyclists, and victims of other traumatic conditions as unintentional trauma & assault. A total of 92 injured patients including 54 car drivers,