

Epidemiology and Injuries in Traffic Accidents: Pedestrians Hit and Run Victims in Sao Paulo, Brazil

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Abstract

Introduction

External causes have gained relevance in the last decades due to the important impact that these diseases have on health care and assistance, raising the costs in the sectors and levels of care involved, besides having a great relevance in the morbidity and mortality of the population. The services that are most burdened by the high demands resulting from the accidents are mainly public emergency services, specialized assistance, physical rehabilitation, psychological and social assistance.

Objective

This study aims to analyse the victims of road accidents, the frequency and severity of the injuries identified.

Method

This is a descriptive study about the notifications of accidents in terrestrial transportation that occurred between January and October 2018 related to pedestrians in the city of Sao Paulo.

Results

During the study period, there were 1665 pedestrians trampling. Accidents were caused mainly by automobiles (43.1%), the victims were predominantly male.

Conclusion

Trauma victims have intracranial, thoracic, abdominal and extremity lesions with greater frequency and severity.

Introduction

In the last few decades, due to an important role in assistance in health, to a point of elevating costs in individualized sectors and assistencial levels involved, as well as having great relevance in morbidity and mortality of the population, external causes has become very important topic to discuss.

Emergency services, specialized assistance, physical rehabilitation, psychological and social assistance are services that have a huge demand due to accidents [1-3].

Pedestrians, as well as cyclists and motorcyclists are part of the most vulnerable traffic group to suffer an accident while on the streets [4].

The main risks to which pedestrians are exposed to, include driver behaviour (inadequate speed, drunk driving, and bad driving); infrastructure (existence and bad sidewalk maintenance, crosswalks, bad signalling); automobiles designs - inflexible hoods - which are not favourable do hit and run victims; bare emergency assistance care treatment. Many factors include the risks and severity of pedestrian injuries such as frontal collision with automobiles, location of impact, and vehicle speed when this collision happens [4].

This present study has as the objective to analyse the victims, the frequency and severity of identified injuries on hit and run accidents.

Method

This is a descriptive study about the notifications of accidents in terrestrial transportation that occurred between January and October 2018 related to pedestrians in the city of Sao Paulo.

During this period, there were 1665 hit and run notifications in Sao Paulo [5]. A study was, then, organized, utilizing data from the Violence and accidents information system of the United health system (SIVVA/SUS) of the municipal health secretary of Sao Paulo, SP, Brazil where the information of accidents are registered on a notification formulary of confirmed and suspected cases of violence and accidents. The variables utilized on this study were: age (in years), sex (male/female), diagnosed injury and case evolution.

The study was based exclusively on data of public access, not being necessary the judgement of an ethic committee related to research using human beings as required by the National health council resolution (CNS 466/12).

Results

During this period, there were 1665 hit and run evolving pedestrians.

The accidents were caused, mostly by automobiles (43.1%), motorcycles (25.9%) and bicycles (5.0%).

The victims were predominantly male (60.6%). Regarding the victims' ages: 50.8% were adults (20 - 59 years old), 34.8% were children and adolescents and 14.3% were seniors (60 years old or older).

The main injury diagnosed were: bone fractures (11.2%), primarily in tibia diaphysis, metatarsus and clavicle. Trauma (42.1%): Non-specified superficial leg trauma, non-specified head trauma and association of chest and abdomen trauma, lower back, pelvis and limbs. Contusions (18.01%): knee, ankle, arm and shoulder.

Regarding the evolution of the patients, 79.2% were discharged from the hospitals, 16.5% were admitted to the hospital for a longer term treatment, and 0,4% died during treatment.

Discussion

In the present study, 1665 hit and run accidents happened in Sao Paulo between January and October 2018. These accidents are a result of man factors, related to local conditions as well as personal conduct [1].

This study highlights the fact that traffic accidents are avoidable and affects most people which are in an economically active age (50.8%) in Sao Paulo. This impacts families in the city because the people injured are the also source of income for the family. This implies in a great multisectorial loss for the people and the country [6].

The results showed that the majority of people that received treatment were male. This follows what is described in literature, which points out that most traffic accident victims are young adults, aged 15 to 44 years old, male that find themselves in a productive life phase [7,8].

The accidents involving pedestrians in this study, were caused, primarily by motor vehicles. Which points out that prevention is the most important way to avoid kinds of traumas, injuries and some cases, death related accidents involving pedestrians [9].

The authors usually work with three kinds of associated injuries: perforation, cuts and laceration that together compose the majority of injuries. This study also points out that Trauma is the most frequent kind of injury while contusions are the second most frequent, and fractures as the third most frequent kind of injuries [10].

Most terrestrial transportation accidents, Zago, involving motorcyclists as well as pedestrians, mostly cause traumas because it has a greater body exposition compared to other users of public highway [11].

Traumas represent a great issue to public health. While traffic accidents are the most frequent kind of trauma and its victims are considered high risk patients due to the unknown immediate lesions. The pre-hospital and immediate hospital care to trauma victims can have a greater quality when a systemized assistance is given. An assistance in which relevant information is given, situations are analysed, decisions are made and the treatment is given, prioritizing what needs priority, in a minimum time possible with efficiency [12].

The information found in this study show the importance in promoting ideas and awareness to prevent traffic accidents focusing more on the risk groups [13,14].

The great proportion of urgent care associated with the low proportion of deaths is referred in Cunha's study [15], although the presence of deaths stimulate a reflection about the potential years of life lost by these Young adults in productive years, due to an avoidable cause. These accidents can be avoidable if only conductors, competent authorities, and all those related to street traffic adopt preventive measures to do so [15].

Conclusion

The traffic accidents involving pedestrians are frequent in our day to day lives, So recurrent, to a point of being classified as a public health problem. The profile of the average hit and run victim is a young adult male with greater injury on the lower limbs.

These eventualities interfere in the life quality and economy of a country, because most victims are economically active, generating costs to the public health system.

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