

55 - CHARACTERIZATION OF VICTIMS OF VEHICLE-PEDESTRIAN COLLISIONS HOSPITALIZED IN AN URGENCY SERVICE IN NATAL/RN.

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INTRODUCTION

External Causes (Ecs), according to chapter XX in the International Classification of Diseases and Related Health Problems, 10th revision, represent, in the field of healthcare, the incidents and environmental circumstances that cause injuries, poisoning and other effects adverse to men (BRASIL, 2003).

According to mortality statistics, a significant amount of deaths occurred in Brazil are caused by ECs, corresponding to 127,470 in the year of 2004. Among these deaths prevailed those caused by Traffic Accidents (TAs), which represented 50,000 deaths in the year of 2007 (RAMOS, 2008).

The expressive growth in the number of active vehicles and the high rate of inadequate driver behavior, along with insufficient vigilance, have thus made TA involving vehicles an important source of trauma in the population worldwide (BASTOS; ANDRADE; SOARES, 2005).

In a document presented by the Brazilian Association of Traffic Medicine (Associação Brasileira de Medicina de Tráfego – ABRAMET), in Brazil, about 1,000,000 traffic accidents happen every year, resulting on 350,000 wounded people, among which 150,000 acquire some type of disability and another 50,000 die. It also emphasizes another relevant fact: not only our accident rates are higher than those of other countries, the percentage of people with disabilities caused by TAs is much higher: about 14%, compared to 5-7% on western Europe countries and the 0

In the context of TAs, vehicle-pedestrian collisions constitute one of the most frequent types of accident and, in Brazil, considering only the geographic areas with the best quality information, it's been observed these events cause 50% to 85% of deaths.

According to the Pedestrian Association (Associação de Pedestres), every seven minutes a vehicle-pedestrian collision takes place, and every 22 minutes a person dies in this type of accident, increasing mortality rates to 6,303 in the year of 2007 (BOVA; WALL, 2005; ABRASPE, 2007).

The main victims' general profile is that of young adult males, since they are more exposed and use more alcohol, tobacco and other drugs (DENATRAN, 2002; BARROS, 2008).

The main factors and circumstances that contribute to the occurrence of vehicle-pedestrian collisions are the lack of traffic education; excessive speed; ignoring of traffics signs; lack of attention; consumption of alcoholic beverages and other drugs by vehicle drivers. The pedestrian, however, has its share of responsibility in the event, through lack of attention when moving, lack of knowledge of vehicle-pedestrian collision risks; and not using equipment directed at pedestrians, such as crosswalks and footbridges (SARAH, 2000; SOUZA et al., 2007).

Regarding expenses with these vents, in the year of 2005, the State of São Paulo spent an approximate 11 million reais with hospitalization due to vehicle-pedestrian collisions, which corresponds to an amount over 47% higher than other hospitalizations (SEADE, 2006).

Given the exposed facts, and concerned with identifying who these victims are with the intention of improving assistance quality and consequently decrease the rate of deaths and handicaps, we created these questions: who are the victims of vehicle-pedestrian collisions attended to in the Natal/RN urgency services? Which are the injuries by affected body region?

From these questions, we have the following objectives: to identify victims of vehicle-pedestrian collisions attended to in the Natal/RN urgency services; to identify body regions most affected by these events.

MATERIAL AND METHOD

This study is of the exploratory descriptive type, with a quantitative approach and prospective data, performed in the urgency units in Pronto Socorro Clóvis Sarinho (PSCS), with is an annex of Complexo Hospitalar Monsenhor Walfredo Gurgel (HMWG) and is located in the East District of the city of Natal.

The population consisted of 30 vehicle-pedestrian collision victims, attended to in PSCS and selected according to the following inclusion criteria: being victims of vehicle-pedestrian collisions, of both genders, aged over 18, conscious, and accepted to take part in the research. The instrument used for data collection was a form with open and closed questions related to the characterization of the victim and the body region affected in the event.

The data collection was performed from June to September 2007, after approval by the ethics committee (Comitê de Ética), Protocolo n° 016/07 and we thus followed the ethical principles for research on human beings, according to Resolução 196/96 from the Conselho Nacional de Saúde (BRASIL, 2000).

The data were collected according to the following steps: we initially identified whether patients were inside our inclusion criteria; afterwards, we presented ourselves and explained our research objectives and requested their acquiescence to take part in the study. Once they accepted to participate in the investigation, we presented the term of free and clear consent (TCLE), asked them to read it, and then collected their signature. In the case the patient was illiterate, we asked to collect their fingerprint.

We also informed their participation in the study was voluntary and that they could leave the study at any time, as well as assuring them of their identity and information's secrecy. We then proceeded with an interview in order to collect personal data and performed a physical encephalic-podalic aiming to identify the most affected body regions.

The data were analyzed by descriptive statistics and presented in the form of tables and graphs. To that end we used Statistica 6.0 and Microsoft Excel XP software.

RESULTS AND DISCUSSION

Characterization of vehicle-pedestrian collision victims according to gender, age, marital status, level of instruction and occupational level.

Out of the 30 researched victims, there was a predominance of the male gender with 19 (63.3%) followed by females with 11 (36.6%). Similar data were found by Deslandes and Silva (2007) who analyzed vehicle-pedestrian collision victims attended to in two public hospitals in Rio de Janeiro. In hospital 01, located in the city's South zone, 94 men and 64 women were attended to, and in hospital 02, in the city's North zone, 97 men and 46 women were recorded as victims of vehicle-pedestrian collisions.

It's believed that, because men move about more frequently within the urban perimeter and are less cautious, they are more exposed and consequently more often victims of vehicle-pedestrian collisions (SILVEIRA, RODRIGUES, COSTA JÚNIOR, 2002).

Regarding age, we found that 10 (33.3%) victims were aged 18 to 24; 06 (20.0%) were aged 35 to 44; 06 (20.0%) were aged 45 to 59; and 04 (13.3%) were aged 60 to 73.

Studies performed in Rio de Janeiro demonstrated that the population aged 60 and older were the main victims of vehicle-pedestrian collisions. The authors believe this happens because the motor, visual and auditory capacity is diminished in the elderly, making them easier victims for vehicle-pedestrian collisions and traffic accidents in general (MELLO JORGE, 1980; SOUZA; CAVENAGHI; ALVES, 2006).

When analyzing the victims' marital status, we detected 13 of them (43.3%) were single, followed by 11 (36.3%) married, 04 (13.3%) widowed and only 02 (06.6%) widowed.

According to Maia (2006), in the city of São Paulo, in the year of 2006, 49% of all death by vehicle-pedestrian collisions were of single victims, only 26% on married and 08% on widowers, in agreement with our findings.

The population victimized by this type of accident is mostly young adults, which are part of the "full nest" phenomenon, which happens when this population continues to reside with their original family, failing to emancipate financially and emotionally from their parents due to current economic circumstances and thus remaining single (SILVEIRA; WAGNER, 2006).

When we analyze the data regarding the level of instruction, we notice 43.3% of the victims had not completed the fundamental school level; 13.3% had an incomplete middle level; 03.3% a complete fundamental level and the same number had complete superior level education.

Silva and Kassouf (2002) observed that low education level happens due to the early inclusion of young people in the job market, limiting work opportunities to posts which don't require qualification and yield low wages, trapping them in a cycle of poverty already experienced by their parents.

Regarding the victims' occupational level, we used the method created in 1969 by Fonceca (1967), which classifies occupation posts in 05 levels: level I – which includes non-specialized manual work posts, retired people, students and the unemployed; level II – including specialized manual jobs; level III – including supervision and other non-manual jobs; level IV – includes management and middle-level technician jobs; level V – includes independent liberal professions and high management jobs.

In our study, level of occupation I was predominant, with a percentage of 73.3%, that is, the victims of vehicle-pedestrian collisions performed non-specialized manual jobs, were retired, students or unemployed.

The author emphasizes that productive activity, beyond giving economic support, influences the process of rehabilitation as a source of personal satisfaction and self-esteem, an element in the maintenance and acquisition of social relations and a determinant factor in the individual's importance in their social group (SILVA; KASSOUF, 2002).

Characterization of anatomical location of injuries caused by vehicle-pedestrian collisions

According to the collected data regarding the main body regions affected during vehicle-pedestrian collisions, we found that there was a prevalence of wounds in the limbs/pelvic waist with 59.0%; followed by the face with 15.0%; the outer surfaces had a percentage of 12.0%; head/neck 06.0% and abdomen/pelvic contents 04.0%.

Backing our own data, we found a study made in a hospital of Brasília, in 2000, revealing most victims of vehicle-pedestrian collision had orthopedic injuries in the lower limbs. Among the lower limb regions, the ones most affected were the legs and thighs (SARAH, 2000).

According to a study performed in São Paulo in the year 2006, lower limbs and pelvic waist are the most often injured regions, followed by head/neck (BATISTA, 2006).

When the pedestrian collides with a vehicle or the automobile collides with the pedestrian, the first impact areas are the lower limbs, possibly leading to tibia, fibula, femur and pelvis trauma, depending on the victim's height. There's a tendency for the individual to be launched over the car, leading to an impact of the head/neck against the windshield following the initial collision.

FINAL CONSIDERATIONS

We conclude that out of the 30 researched victims the male gender was predominant; in the age group of 18 to 24; the great majority was single; had incomplete fundamental schooling; and performed predominantly non-specialized manual jobs or were retired, students or unemployed. Regarding injuries by body region, the most affected areas were the limbs/pelvic waist, followed by the face and outer surfaces.

We cannot, thus, deny the grave consequences that vehicle-pedestrian collisions bring onto the victims, their relatives, and the society. They also generate considerable expenses with hospitalization, treatment, labor compensations, among others.

The data in this research can contribute to the creation of educational programs that aim to minimize the amount of victims of vehicle-pedestrian collisions, as well as to contribute to the improvement in the quality of nursing assistance on pre-hospital and hospital environments. We also believe that providing health professionals with the knowledge of the reality of these accidents can greatly contribute to their prevention and the promotion of public health.

KEYWORDS: TRAFFIC ACCIDENTS, EXTERNAL CAUSES, INJURIES.

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CHARACTERIZATION OF VICTIMS OF VEHICLE-PEDESTRIAN COLLISIONS HOSPITALIZED IN AN URGENCY SERVICE IN NATAL/RN.

ABSTRACT

Introduction: traffic accidents were responsible for over 50,000 deaths in 2007. In the context of TAs, vehicle-pedestrian collision incidents constitute one of the most frequent accident types, generating expenses of approximately 11 million reais with victim hospitalization in 2005 in São Paulo (RAMOS, 2008). Objectives: to identify vehicle-pedestrian collision victims attended to in the urgency service in Natal/RN; to identify body regions most often affected by the events. Methodology: it's an exploratory descriptive study, with a quantitative approach and prospective data, performed in the urgency units in Pronto Socorro Clóvis Sarinho (PSCS), with protocol #016/07. The used inclusion criteria were: victims of vehicle-pedestrian collision of both genders, aged over 18 who accepted to take part in the research. The population consisted of 30 victims of running over, 19 (63.3%) were male; 13 (43.3%) were single. Regarding injuries by body region, 59.0% of the victims had injuries in the limbs/pelvic waist, followed by the face with 15.0%; head/neck with 06.0%. Conclusion: it's crucial to know who the victims are and which body regions are most often hit by the event, so health education programs can be created which can transform behavior in traffic.

KEYWORDS: Traffic accidents, External Causes, Injuries.

CARACTÉRISATION DES VICTIMES D'ACCIDENTS DE LA RUE HOSPITALISÉES DANS UN SERVICE DES URGENCES À NATAL/RN.

RÉSUMÉ

Introduction : les accidents de la circulation ont été responsables de plus de 50.000 décès au cours de l'année 2007. Dans l'ensemble des AC, les accidents de la rue constituent une des formes les plus fréquentes, occasionnant des dépenses d'environ 11 millions de reais avec les hospitalisations des victimes, en l'année 2007, à São Paulo (RAMOS, 2008). Objectifs : identifier les victimes des accidents de la rue secourues au service des urgences à Natal/RN ; identifier les régions du corps les plus touchées en raison de ces accidents. Méthodologie : il s'agit d'une recherche exploratoire descriptive, avec une approche quantitative et des données prospectives, réalisée dans les Unités des Urgences du Pronto Socorro Clóvis Sarinho (PSCS), sous le numéro de registre 016/07. Les critères d'inclusion utilisés ont été les suivants : victimes d'accidents de la rue des deux sexes, âgés de plus de 18 ans, et qui ont accepté de participer à la recherche. La population était composée de 30 victimes d'accidents de la rue, secourues entre juin et septembre 2007, au Pronto Socorro. Résultats : des 30 victimes, 19 (63,3 %) étaient du sexe masculin ; 13 (43,3 %) étaient célibataires. En ce qui concerne les lésions par région du corps, 59,0 % des victimes ont eu des lésions aux membres et à la ceinture pelvienne, suivis de la face (15,0 %) et de la tête/cou (06,0 %). Conclusion : il est indispensable de connaître les victimes ainsi que les régions du corps les plus touchées par l'accident, afin que l'on puisse créer des programmes d'éducation pour la santé aptes à transformer le comportement dans la circulation.

MOTS-CLÉS : Accidents de la circulation, Causes extérieures, Lésions.

CARACTERIZACIÓN DE LAS VÍCTIMAS DE ATROPELLAMIENTO INTERNADAS EN UN SERVICIO DE URGENCIA. EN NATAL/RN.

RESUMEN

Introducción: Los accidentes de tránsito fueron responsables por más de 50.000 muertes en el año de 2007. En el conjunto de los AT's, los atropellamientos constituyen una de las formas más frecuentes de accidente, generando gastos de aproximadamente 11 millones de reales con internaciones a las víctimas en el año de 2005 en São Paulo (RAMOS, 2008). Objetivos: Identificar a las víctimas de atropellamiento atendidas en el servicio de urgencia en Natal/RN, Identificar las partes del cuerpo más atacadas derivadas de los accidentes. Metodología: Se trata de un tipo exploratorio descriptivo, con alcance cuantitativo y datos prospectivos, realizados en las Unidades de Urgencia del "Pronto Socorro Clóvis Sarinho" (PSCS), con el protocolo N° 016/07. Los criterios de inclusión utilizados eran víctimas de atropellamiento de ambos sexos mayores de dieciocho años, y que aceptaron participar de la investigación. La población de víctimas fue de 30 atropellamientos, atendidas de Junio a Setiembre de 2007, en emergencia. Resultados: De las 30 víctimas, 19(63,3%) eran del sexo masculino, 13 (43,3%) eran solteros. En relación a las lesiones corporales 59,0% de las víctimas tuvieron lesiones en los miembros, pelvis seguidos por la

cara con 15,0%, y cabeza/ cuello con 06,0%. Conclusión: Es fundamental que sepamos quienes son las víctimas y las regiones del cuerpo más atacadas por el accidente para que se cree Programas de Educación de Salud, capaces de transformar el actual comportamiento en el tránsito.

PALABRAS CLAVES: ACCIDENTES DE TRÁNSITO, CAUSAS EXTERNAS, LESIONES.

CARACTERIZAÇÃO DAS VÍTIMAS DE ATROPELAMENTO INTERNADAS EM UM SERVIÇO DE URGÊNCIA EM NATAL/RN.

RESUMO

Introdução: os acidentes de trânsito foram responsáveis por mais de 50.000 óbitos no ano de 2007. No conjunto dos AT's, os atropelamentos constituem uma das formas mais frequentes de acidente, gerando gastos de aproximadamente 11 milhões de reais com internações as vítimas, no ano de 2005, em São Paulo (RAMOS, 2008). Objetivos: identificar as vítimas de atropelamento atendidas no serviço de urgência em Natal/RN; Identificar as regiões corpóreas mais atingidas decorrentes dos eventos. Metodologia: trata-se de um tipo exploratório descritivo, com abordagem quantitativa e dados prospectivos, realizada nas Unidades de Urgência do Pronto Socorro Clóvis Sarinho (PSCS), com o protocolo n° 016/07. Os critérios de inclusão utilizados eram: vítimas de atropelamento de ambos os sexos, maiores de dezoito anos, e que aceitaram participar da pesquisa. A população constou de 30 vítimas de atropelamento, atendidas de junho a setembro de 2007, no Pronto Socorro. Resultados: das 30 vítimas, 19 (63,3%) eram do sexo masculino; 13 (43,3%) eram solteiros. Em relação a lesões por região corpórea, 59,0% das vítimas tiveram lesão nos membros/cintura pélvica com seguidos pela face com 15,0%; cabeça/pescoço com 06,0%. Conclusão: é fundamental que saibamos quem são as vítimas e as regiões corpóreas mais atingidas pelo evento, para que se crie programas de educação em saúde capazes de transformar o comportamento no trânsito.

PALAVRAS CHAVES: Acidentes de Trânsito, Causas Externas, Lesões.

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