56 - PROFILE OF ACCIDENTS AT WORK DUE TO NEGLIGENCE AND RECKLESSNESS WITH PUNCTURE-CUTTING OBJECTS FROM GROUP "E"

CLEANGELA MENDES DE ANDRADE REIS[1];
DIRCE LOPES HIPÓLITO ANACLETO[1];
DANIELA PASINATTO[1];
MARTA LOPES IPOLITO[1];
PEDRO FERREIRA REIS[2]
1 - IESFI – AEI – FOZ DO IGUAÇU – PARANÁ – BRASIL
2 - FEFFI – IESFI – AEI – UDC – FOZ DO IGUAÇU – PARANÁ - BRASIL
cleofarmacia@hotmail.com

doi: 10.16887/85.a1.56

INTRODUCTION

Accidents with puncture-cutting objects from group "E" are highly complex, since they could provide contaminations and biological risks, highlighting the acquired immune deficiency syndrome (AIDS), hepatitis B and C among others. In this sense, the best way to prevent accidents is to be aware of biosecurity, which comprises a broad group of safety standards (BRANDI, BENATTI, ALEXANDER, 1998). According to Mastroeni, (2006), the emergence of AIDS served as a stimulus to the adoption of effective safety standards.

It is important to clarify that accidents with puncture-cutting objects from group "E" indicate six devices that account for approximately eighty percent of accidents, including accidents with disposable syringes / hypodermic needles (30%); suture needles (20%); needles for blood collection (3%); scalpel blades (8%); intravenous catheter stylus (IV) (5%); scalps (12%) (BRASIL, 1994; MASTROENI, 2006).

There are good practices to minimize the risks of accidents daily in health institutions; the care of the patient requires the handling and disposal of puncture-cutting objects. The greater the need for care, the greater the intensity of use of needles, scalpels, intravenous catheters or invasive surgical procedures. Notification is important for raising awareness of the risks that health professionals are running, as they have to have responsibility for themselves and for people surrounding them and immediately notify the occurrence of accidents. Workers should be aware that apparently simple and casual accidentswith no obvious injury risk may be hiding serious risks to them and to other people circulating in the environment.

Some diseases can be contracted by accidents with puncture-cutting objects such as Brucellosis, Cryptococcosis, Diphtheria, Gonorrhea, Herpes, Tuberculosis, among others. Several of these diseases have been transmitted in rare isolated events, and continue to demonstrate; however, that accidents with puncture-cutting objects can have serious consequences. In this sense, the availability of PPEshas always been greater than their use, which despite available, were not always used by professionals, and 46.29% of injured nursing workers, for example, did not using PPE at the moment of the accident and reported that they were not using them due to heat; nuisance; lack of habit; forgetfulness; for believing that it was not necessary and that the material was not contaminated (DAMASCENO, et al., 2006).

Recklessness is acting without caution, lack of wisdom, not taking the proper precautions, facing danger and risking oneself to save time or to avoid the effort of taking precautions (MASTROENI, 2006). However,negligence is thelack ofprofessional experience indicated as a contributing factor to accidents and related to the lack of skill in handling devices, or even to excessive experience leading to self-confidence in carrying out work activities and noncompliance with precautions required, which are evidenced as predisposing factorsfor the occurrence of accidents (CORREIA, et at., 2014).

Diseasessuch as Blastomycosis, Cryptococcosis, Diphtheria, Ebola, Gonorrhea, Hepatitis B, Hepatitis C, HIV, Leptospirosis, Tuberculosis, Spotted Fever, S. Pyogenes and Syphilis are infections transmitted at Laboratory / Autopsy (LA), Hepatitis B, Hepatitis C, and HIV can also be transmitted during patient care (PC), as well asHerpes, Malaria and Tuberculosis (DAMASCENE, et al., 2006; VIEIRA; PADILHA, 2008).

There are several types of accidents that can occur in case of lack of rapid control, and the development of simple modifications such as lectures, courses and training is important for prevention and it is interesting that in most cases, the development of simple modifications without cost can reduce the occurrence ofaccidents with puncture-cutting objectsfrom Group E. In this sense, the aim of this study was to analyze the profile of accidents at work due to negligence and recklessness with puncture-cutting objects from group "E"of a private hospital at Foz do Iguaçu/PR, Brazil.

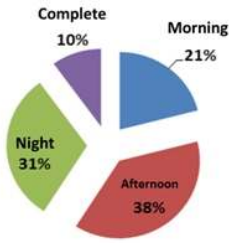
METHODOLOGY

This study was carried out through retrospective descriptive exploratory method of data of occupational accidents occurred in the year 2013 in a private Hospital of Foz do Iguaçu, state of Paraná, Brazil. Data used for the study were obtained from medical records of accidents involving negligence in handling puncture-cutting objects from group "E".

Firstly, the informed and clarified consent form was signed by injured workers and then data collection was performed. Statistical data were analyzed using the Bioestatic 5.0. and Excel for Windows software.

RESULTS AND DISCUSSION

The results per work shift and type of accident and route of infection entry will be firstly presented and discussed.



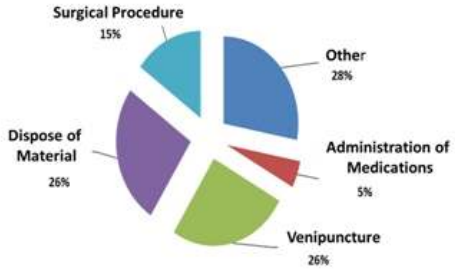
GRAPH 1 – Profile of accidents per work shift

It has been found through this research that accidents occurred mostly in the afternoon (38%), evening (31%), full time (10%), and morning (21%), from03:30 pm and 06:00 pm, and according to Brandi et. al (1998), day shifts show higher occurrence

of accidents with puncture-cutting objects, which can be attributed to the fact that the amount of work is higher in this period, and most therapeutic procedures and collection of material for exams are performed in this period.Lima and Cunha (2003) found that employees who work during the day shift are more involved in accidents that those who work at the night shift, because it is known that during the day, the demand for patients is higher and consequently the number of employees is also increased, and during the night shift, the number of employee is reduced by 50%.

Environmental humidity and ambient temperature as the human being directly influence the performance of human labor, both on productivity and on the risks of accidents. Employees of the laundry area for example, working with contaminated clothing, use specificPersonal Protective Equipment (PPE) such as rubber boots, long pants, rubber gloves, jackets and face masks, but this equipment becomes inefficient in relation to the risk ofaccidents with puncture-cutting objects that usually come along with hospital clothes (BRASIL, 1994). Thus, temperature should be viewed with extreme caution when seeking adequate environmental working conditions, since there are temperatures unpleasant and harmful to health, either too high or too low.

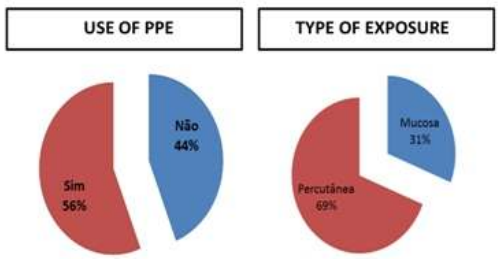
Importantly, after lunch meal, the circadian rhythm affects tasks involving cognition both in daytime and performance (MINATI et al., 2006). So, the situation presented in this study may have some relationship between lunch meal with 38% of accidents occurred in the afternoon shift.



GRAPH 2– Profile of Procedures at the moment of Accident

Accidents occurred at the moment of material disposal (26%), venipuncture (26%), surgical procedures (15%), others (28%) and drug administration (5%). In this context, Barboza et al. (2004) reported that fingers are usually the most affected region of the body due to the manipulation of puncture needles, drug administration and recapping of needles. Thus, the frequency of accidents with puncture-cutting objects among members of the nursing staff is due to the fact that technicians and assistants are in direct contact with patients, making dressings, administering drugs and other procedures involving the use of puncture-cutting objects (DAMASCENO et al., 2006; RIBEIRO et al, 2009).

Despite the large amount of information about the importance of using PPE in invasive surgical and puncture procedures, there are failures in the use of such equipment by professionals, as well as overconfidence in performing the process, since routine leads to accidents withpuncture-cutting objects (ALVES; PASSOS; TOCANTINS, 2009). These authors report that the use of PPE is very important in the hospital environment. In this sense, in the handling of puncture-cutting objects both before and after drug administration, punctures and other vascular accesses, these materials require special disposal and the practice of recapping needles should be abolished (ASSIS, et al, 2012;. VIEIRA; PADILHA, 2008). So, when these measures are ignored, the risk of accident is imminent, as can be seen in the results shown in graph 3.



GRAPH 3 -Use the PPE and Type of Exposure at the moment of Accident

It was observed in this study that56% of injured nursing professionals were using PPE at the moment of accident, and 44% were not. This neglect behavior is in agreement with results obtained byDamascenoet al., (2006), Souza and Vianna (1993), whofound that the availability of PPE has always been greater than its use; however, although available, many of these were not used by nursing professionals, 46.29% of injured nursing workers did not use PPE at the moment of accident and they reported that they were not using them due to heat; nuisance; lack of habit; forgetfulness; for believing that it was not necessary and that the material was not contaminated, which result is similarto that obtained in this study. Analyzing the usability of PPE at the time of acquisition is important both to preserve the health of workers and to prevent accidents. Ribeiro et.al (2009) concluded in their study that there is a resistance among professionals in the use of PPE, which occurs because the risk that they are exposed to is underestimated. In this context, the Internal Commission for Accident Prevention (CIPA) should warn and educate workers about the daily risks they are exposed to, since in urgent or emergency care, it is difficult to identify a possible positive HIV, so any person can be considered potentially infected.

The use of PPE is very important in the hospital environment and in the handling of puncture-cutting objects both before and after drug administration, punctures and other vascular accesses, and these materials require special disposal and the practice of recapping needles should be abolished (BARBOZA, et al., 2004). According to results presented in this study, most accidents occurred by percutaneous exposure (69%) and mucosa (41%). Thus, manipulating puncture-cutting objectsis linked to accidents with skin or percutaneous perforation. Thus, one of the most serious consequences of accidents with skin

puncture is contamination by AIDS virus (HIV), and up to the serological testing results, professionals who have suffered the accident also become emotionally affected (MASTROENI, 2006).

It was observed that working conditions, individual behavior, emergency, lack of professional training, work overload and non-adherence to standard precautions, are reported as potential causes for the occurrence of percutaneous injuries (CANINI, et.al, 2008). The hypothesis that accidents with puncture-cutting objects occur due to negligence or recklessness is confirmed, because considering that although PPEs were available, it was found that in 56% of accidents, professionals were using the equipment but 44% were not, thus, it could be concluded that workers who did not use PPE were reckless. Rabello (2013) definesrecklessness is acting without caution, lack of wisdom, not taking the proper precautions, facing danger and risking oneself to save time or to avoid the effort of taking precautions. Workers who used PPEs were negligent because considering that the consequences of the accident are not immediate and not seen by the naked eye, neglect occurs in itself, and factors such as neglect of other professionals, patient agitation, hurry and inattention strongly contribute for the occurrence of these incidents. Thus, neglect occurs when workers even using PPEs, do not follow standard operating procedure (LUBENOW and MOURA, 2012).

CONCLUSIONS

This study concluded that accidents occurred both due to negligence and recklessness. Thus, the need for greater awareness of workers, both about the importance of using PPE and about the application of Standard Operating Procedure (SOP) for all activities involving puncture-cutting objects is evident. Another important factor presented in this study was the fact that the afternoon shift showed the highest number of accidents, and in this sense, it is important to raise workers' awareness of this shift on the post-lunch physiological condition, since as a function of digestion, it can cause a deficit in cognition and performance.

Further studies should be carried out on this topic, highlighting the training period for young workers and the double shift, since the sample of this study consisted mostly of women. Thus, analyzing the number of jobs, marital status and household activities could contribute to the reduction of accidents in the hospital area.

REFERENCES

ALVES, S. S. M.; PASSOS, J. P.; TOCANTINS, F. R. Acidentes com perfurocortantes em trabalhadores de enfermagem: uma questão de biossegurança. Rev. enferm. UERJ., Rio de Janeiro, v.17, n.3, p. 373-7, 2009.

ASSIS, D. C.; RESENDE, D. V.; SILVA, A. M. B.; MIRANZI, M. A. S. Fatores predisponentes à ocorrência dos acidentes de trabalho com material perfurocortante entre trabalhadores de enfermagem. Saúde Coletiva, v. 9, n. 56, p. 51-5, 2012.

BRASIL. AGÊNCIA NACIONAL DE VIGILÂNCIA SANITÁRIA - ANVISA. Ministério da Saúde. Coordenação de Controle de Infecção Hospitalar. Processamento de artigos e superfícies em estabelecimentos de saúde. 2.ed. Brasília, 1994. 32p.

DAMASCENO, A.P, et al., Acidentes ocupacionais com material biológico: a percepção do profissional acidentado. Rev Bras Enferm. v.59, n.1, p.72-77, 2006.

BARBOZA, D.; SOLER, Z. A.S.G; CIORLIA, L. A.S. Acidentes de trabalho com perfuro-cortante envolvendo e equipe de enfermagem de um hospital de ensino. Arq Ciênc Saúde. v11, n.2, p. 1-8, 2004.

BRANDI, S.; BENATTI, M. C. C. e ALEXANDRE, N. M. C. Ocorrência de acidente do trabalho por material perfurocortante entre trabalhadores de enfermagem de um hospital universitário da cidade de Campinas, estado de São Paulo. Rev. esc. enferm. USP. v.32, n.2, pp. 124-133, 1998.

CANINI, S. R. M. S., et al., Fatores associados a acidentes percutâneos na equipe de enfermagem de um hospital universitário de nível terciário. Rev. Latino-Am. Enfermagem. v.16, n.5, p. 818-823, 2008.

CORREIA C.M.A, et al., Fatores predisponentes e medidas preventivas aos acidentes com Materiais perfurocortantes: revisão integrativa. Rev enferm UFPE, v.8, n.3, p. 726-734, 2014.

LIMA C;CUNHA, I.C.K.O. Acidente com material pérfuro-cortante. Rev Enferm, v1,n4, p.21-28 UNISA 2003; 4: 24-8.

LUBENOW, J. A. M, et al., Representações Sociais sobre as causas dos acidentes com materiais perfurocortantes por técnicos de enfermagem. Rev Rene, v. 13, n.5, p. 1132-1141, 2012.

MASTROENI, M. F. Biossegurança Aplicada a Laboratórios e Serviços de Saúde. 2° edição. São Paulo: Editora Atheneu, 2006.

MINATI, A.; SANTANA, M.G.; MELLO, M.T. A influência dos ritmos circadianos no desempenho físico. Revista brasileira de Ciência e Movimento.v.14, n.1, p.75-86, 2006.

RIBEIRO, A. S, et al., Caracterização de acidente com material perfurocortante e a percepção da equipe de enfermagem. Cogitare Enferm, v.14, n.4, p.660-666,2009.

SOUZA, M; VIANNA, L.A.C. Incidência de acidentes de trabalho relacionados com a não utilização das precauções universais. Rev Bras Enf. v.46, n.3/4, p.234-244,1993.

VIEIRA, M.; PADILHA, M. I. C. S. O HIV e o trabalhador de enfermagem frente ao acidente com material perfurocortante. Rev. Esc. Enferm. USP. v.42, n.4, p. 804-10, 2008.

Dr.Rua dos Expedicionários, 425 – Apartamento 41
Caixa Postal 112. CEP: 85.875.000 – Santa Terezinha de Itaipu – Pr.

PROFILE OF ACCIDENTS AT WORK WITH NEGLIGENCE PRODUCTS NEEDLESTICK GROUP "E"

ABSTRACT

Sharps injuries in the group "E" are highly complex, since several contaminations could provide biological risks, highlighting the acquired immune deficiency syndrome (AIDS), hepatitis B and C among others. The aim of this study was to determine the profile of workplace accidents for negligence and recklessness with sharps group "E" in a hospital in Foz do Iguaçu, state of Paraná, Brazil. Data collection was through records of accidents reported in the period January to December 2013. The statistical method used was descriptive and exploratory analyzed by Bioestatic 5.0 and Excel for Windows. Regarding the time of accident data presented in the afternoon (38%), night (31%), whole period (10%), and morning (21%); as was the type, for disposal of this material (26%), venipuncture (26%) surgical procedures (15%), others (28%) and drug administration (5%); regarding the use of personal protective equipment (PPE) (56%) were with PPE at the time of the accident, and (44%) did not. It is concluded that the accident happened, both negligent and recklessly.

KEYWORDS: sharps, negligence, recklessness

PROFIL DES ACCIDENTS DU TRAVAIL FAUTE MATÉRIEL PIQÛRE D'AIGUILLE AVEC LE GROUPE "E".

RÉSUMÉ

Les blessures par objets tranchants dans le groupe «E» sont très complexes, depuis plusieurs contaminations pourraient fournir risques biologiques, en soulignant le syndrome d'immunodéficience acquise (sida), l'hépatite B et C, entre autres. Le but de cette étude était de déterminer le profil des accidents du travail pour négligence et d'imprudence avec le groupe de dièses "E" dans un hôpital à Foz do Iguacu, État de Paraná, Brésil. La collecte des données a été grâce aux dossiers d'accidents signalés dans la période Janvier to Décembre 2013. La méthode statistique utilisée est descriptive et exploratoire analysé par Bioestatic 5.0 et Excel pour Windows. En ce qui concerne le temps de données sur les accidents présentées dans l'après-midi (38%), nuit (31%), période (10%), et le matin (21%); comme ce fut le type, pour l'élimination de cette substance (26%), la ponction veineuse (26%) des interventions chirurgicales (15%), les autres (28%) et l'administration de médicaments (5%); concernant l'utilisation des équipements de protection individuelle (EPI) (56%) étaient avec EPI au moment de l'accident, et (44%) n'a pas fait. Il est conclu que l'accident est arrivé, preuve de négligence et insouciance.

MOTS-CLÉS: les objets tranchants, de la négligence, l'insouciance

PERFIL DE ACCIDENTES DE TRABAJO NEGLIGENCIA PINCHAZO MATERIAL CON EL GRUPO "Y".

RESUMEN

Las lesiones cortopunzantes en el grupo "E" son muy complejos, ya que varias contaminaciones podrían proporcionar los riesgos biológicos, destacando el síndrome de inmunodeficiencia adquirida (SIDA), hepatitis B y C entre otros. El objetivo de este estudio fue determinar el perfil de los accidentes de trabajo por negligencia y la imprudencia con objetos punzantes grupo "E" en un hospital de Foz de Iguazú, Estado de Paraná, Brasil. La recolección de datos fue a través de los registros de accidentes registrados en el período de enero a diciembre de 2013. El método estadístico utilizado fue descriptivo y exploratorio analizado por Bioestatic 5.0 y Excel para Windows. En cuanto al tiempo de los datos de accidentes que se presentan en la tarde (38%), la noche (31%), período entero (10%), y por la mañana (21%); como era el tipo, para la eliminación de este material (26%), la punción venosa (26%) los procedimientos quirúrgicos (15%), otros (28%) y la administración de drogas (5%); en relación con el uso de equipo de protección personal (EPP) (56%) estaban con EPI en el momento del accidente, y (44%) no lo hizo. Se concluye que el accidente ocurrió, tanto negligente y temeraria.

PALABRAS CLAVE: objetos punzantes, negligencia, imprudencia

PERFIL DOS ACIDENTES DE TRABALHO POR NEGLIGÊNCIA COM MATERIAL PERFUROCORTANTE DO GRUPO “E”.

RESUMO

Os acidentes com perfurocortantes do grupo “E” são de alta complexidade, visto que, poderão proporcionar várias contaminações por riscos biológicos, destacando a síndrome da imuno deficiência adquirida (AIDS), hepatites B e C, entre outros. O Objetivo deste estudo foiverificar o perfil dos acidentes de trabalho por negligência e imprudência com material perfurocortante do grupo “E” em um Hospital de Foz do Iguaçu, estado do Paraná, Brasil. A coleta dos dados foi através dos prontuários de acidentes notificados no período de janeiro a dezembro de 2013. O Método estatístico utilizadofoi descritivo exploratório, analisados pelo programa Bioestatic 5.0 e Excel for Windows. Quanto ao período dos acidentes os dados apresentaram no período da tarde (38%), a noite (31%), período integral (10%), e manhã (21%); quanto ao tipo foi, por descarte de material (26%), punção venosa (26%), procedimentos cirúrgicos (15%), outros (28%) e administração de medicamentos (5%); quanto ao uso dos equipamentos de proteção individual (EPI), (56%) estavam com EPI no momento do acidente e (44%) não. Conclui-se que os acidentes aconteceram, tanto por negligência como por imprudência.

PALAVRAS-CHAVE: perfurocortantes, negligência, imprudência