

14 - ULCERS OF PRESSURE IN PATIENTS OF INTENSIVE THERAPY UNIT: INCIDENCE AND ASSOCIATION OF RISK FACTORS.

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INTRODUCTION

The patient considered critical is that one that presents instability of one or more vital organs or is in the imminence to present some alteration in the blood flow. At that rate, the intensive care given to these patients, generally, is more efficient when developed in specific sectors that propitiate resources and purposes for its gradual recovery. These specific units known as Intensive Care Unit (ICU) constitute a set of grouped functional elements destined to the attendance of serious or risk patients who demand uninterrupted medical assistance and of nursing, beyond equipment and specialized human resources (MINISTÉRIO DA SAÚDE, 1998).

Despite the ICU being an ideal place for the treatment of critical patients, also it is considered by Gomes (1998) as one of more aggressive hospital environments, tense, traumatic, a time that develops intensive treatment there, hostile for the proper nature, therefore beyond the critical situation the patients is, there are harmful factors to its psychological structure, as lack of conditions favorable to sleep, frequent therapeutical interventions, isolation, fear of the aggravation of the illness, death and other complications that can be acquired during the long length of stay of the individual of the stream bed, as susceptibility for the development of muscular atrophies and the appearance of Pressure Ulcers (PU).

In This way, we see that the PUs is configured as one of the complications that will be possible to appear in patients admitted in Intensive Care Unit because these patients are displayed to several factors of risk, as: blood flow instability, limitation of the mobility decurrent of many pathologies or sequels of these, compromised general status, age and nutritional status. All these factors characterizing a high risk for the development of PU (CUDDIGAN et al., 2001, FERNANDES; BRAZ, 2002).

The PUs, also called ulcers of compression or ulcers of decubitus, they are considered wounded chronic deriving of areas submitted to constant ischemic process and, consequently, tissue death, whose presence in the patients consists in parameter for the assistance evaluation (SCHOLS et al., 2004).

According to Declair (2003), around 2.1 million patients develop Pressure Ulcers per year, the equivalent to a hospital cost from 4 to 7 thousand dollars per year. They report that, in studies conducted in Europe, Canada and South Africa, from 3% to 11% of the hospitalized patients develop PU. Although in Brazil doesn't have accurate statisticians, Costa (2003), reports that the incidence of PU in ICU patients varied from 10,62% to 44,1%. According to Cuddigan et al. (2001) the level of PU in patients in ICU is higher than the patients that are in others units of the hospital, this fact is associated with risk factors as blood flow instability, respiratory insufficiency, gravity of the illness, bankruptcy of multiple organs, beyond several others factors.

The PUs are an extensive and expensive problem in the care given to the patients, considering that, to know and to understand what the PUs are, their causes and the risk factor allow, to all the involved multiprofessional staff, to implement effective actions of prevention and treatment. This way, we can see that to investigate the risk factors and the related predisponent conditions to the occurrence of PU in the ICU, it's necessary a systematic vision of this complication.

Thus, starting of these initials considerations, we search in this study to identify the incidence of pressure ulcer in patients admitted in the ICU in accordance with the sex, age, period in hospital, disgnostic hypothesis and localization and the association of the risk factors in the occurrence of PUs in patients admitted in ICUs.

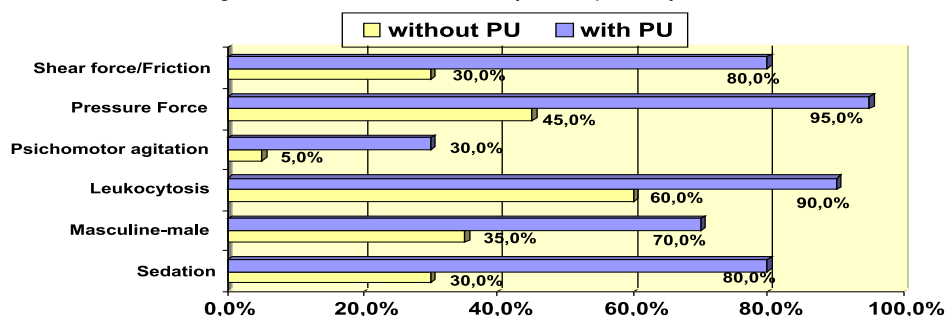
METHODOLOGY

It's about a descriptive study, with longitudinal delineation and quantitative boarding, conducted in two ICUs of a private hospital located in Natal-RN, with 40 patients admitted in these units selected for international sample. The research was appreciated by the Commission of Ethics in Research/UFRN, according to the norm of Resolution 196/96 (Ministério da Saúde, 1997) getting a favorable situation. The data collection was conducted in three shifts by a structuralizaed form of comment and physical examination of the skin of the patients trying to identify the presence of PU.

The collected data had been transferred to spread sheet of the applicatory Microsoft Excel 2000 XP. The information related to the patients, had been submitted to the analysis descriptives statistics. The informations about the incidence and association of the risk factors of PU in the studied patients, the test of possibility reason (PR) and has tested not Qui-Quadrado parameter (2) in program STATISTIC 5.5.

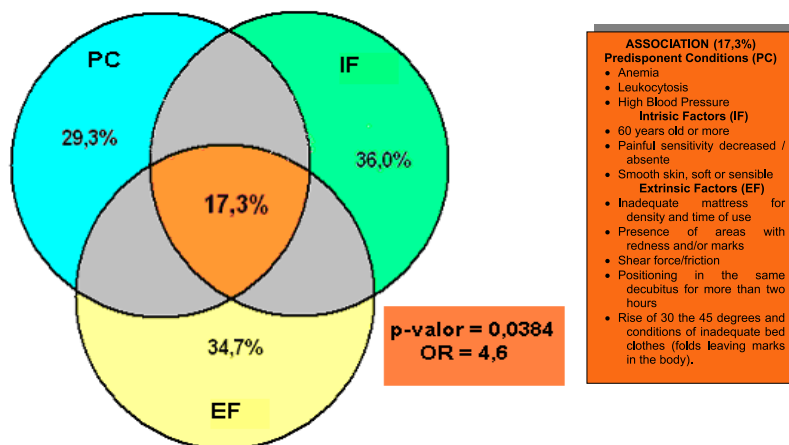
RESULTS

25 pressure ulcers satege 1 had been diagnosed in 50,0% of the followed patients, with incidence of 50% in the two ICUs. The biggest occurrence of PU was discovered in male sex (70%, $p = 0,0267$ e $OR = 4,3$) in relation to the female one (30%). The predominant age was from 60 years (85%). The predominant disgnostic hypothesis (42,3%) had been the respiratory illnesses and more frequent localizations of PU had been in the sacral region (40,0%) and heels (36,0%). The variable that had showed difference significant statistics when analyzed separately can be observed in Picture 1.



PICTURE 1. VARIABLES THAT HAD PRESENTED SIGNIFICANCE STATISTICS AND REASON OF POSSIBILITY IN THE PATIENTS WITH PU OR NOT. NATAL/RN, 2005.

Because of the existence of the multiplicity of predisponent conditions, of the intrinsic and extrinsic factors identified, we will show in the Picture 2 to follow the joined associations that had influenced in the occurrence of PU in the patients of this study.



PICTURE 2. ASSOCIATION BETWEEN PREDISPONENTS CONDITIONS, PREDOMINANT EXTRINSIC AND INTRINSIC FACTORS IN THE SEARCHED PATIENTS. NATAL/RN, 2005.

Were verified between these variables an association of 13.7% statistically significant ($p=0,0384$ OR=4,6), in PC (anemia, leukocytosis and high blood pressure), IF (60 years old more, painful sensitivity decreased/absentee and smooth skin, soft or sensible) and EF (thickness of mattress under 13cm, inadequate mattress for density and time of use, presence of areas with redness and/or marks - pressure forces, shear force/friction, positioning in the same decubitus for more than two hours, rise of 30 the 45 degrees and conditions of inadequate bed clothes - folds leaving marks in the body).

DISCUSSIONS

Anthony et al. (2004), assume that the PUs and their consequences are directly related to the length of period of the patient in hospital. They still says that the length of time in hospital is higher for those with PU through a great variety of conditions, for instance, advanced age, the lower level of the serum albumen, patients in more debilitating and chronic conditions, consequence of surgery, especially of breaking of femur. Brem et al. (2004), say that the age, immobility and the fragility must be taken in consideration when the incidence is determined and analyzed. He adds that the patients in bed can develop PU within two hours.

Marum et al. (2002), consider that the risk to develop a PU is related with a combination of two different sets of factors, called internal and external, together they determine the level of predisposition of the patient to develop PU. This predisposition can change with the time and depends on the health state of the patient. For this same author to measure this susceptibility was always very difficult because the mechanisms of the underlying pathology are obscure.

In accordance with Costa; Lopes (2003), there are several factors that, acting in set, or separately, they can contribute in genesis of the PUs, for instance: the friction and the shear that, together with the mobility deficit, sensitivity, extreme humidity in tissues and incontinence, they make of the injured medular ones potentially premed individuals to this type of complication.

Baumgarten et al. (2004), show the deficiency in the nutritional status, comorbidity, immobility and fecal incontinence as factors more associates with the PU presence. Although in its study the black race to have had a significant association with the PU incidence, these researchers say that there is not enough information on the association between race and the risk of PU.

According to Young et al. (2002), some international studies had identified the immobility, excretion incapacity, poor nutrition, low numbers of Braden, acidity of the patient, comorbidities, gender, length of permanence in the hospital, admission of emergency and age as factors of risk for the PU development. However, none of these studies pointed conclusive to identify a set of prognosticators variable in the PU development. Ducker (2002), describes the age as being risk factors, gender (masculine), marriage status (married or divorced), humidity of the skin for the incontinence, extensive periods in chairs of wheels or bed, diabetes melitus, peripheral vascular illness and limited mobility.

The age, mobility, mental condition, friction and shear had been significant in the evaluation of risk for occurrence of PU in the research of Perneger et al (2002). The mental condition and mobility with a lesser significance, being, the age, frictional and shear force with a higher significance. Backes; Guedes; Rodrigues (1999), say that the patients confined in the stream bed for long period, with edema, motor and sensitive disfunction, sedative use, muscular atrophy and reduction of the cushion, they are more inclined to develop PU. According to Fernandes; Braz (2002), the more frequent risk factors in the patients with PU are: infectious focus, anemia, nutritional deficiency, reduction of mobility, reduction of the sensorial perception, increase of the humidity, edema and hipertermia.

We agree to Silva (1998), when admitting the multicausality in appearance of PU, as well as the necessity of a systemize clinical evaluation of the patient who contemplates the complexity of the association of the factors and conditions present during the period in hospital, and of the relative aspects to the institucional responsibility in assuring the essential conditions for a quality assistance.

CONCLUSION

The incidence of PU in the patients of the ICUs was raised on the basis of referencial of the study and dealing with units of a private hospital institution. The highest occurrence of PU was in the male sex in relation to the female one; the

predominant age was from 60 years, the disgnostic hypothesis predominant, the respiratory illnesses and the localizations most frequent of PU had been to the sacral region and heels.

The association verified in this study denotes the relevance to search in each situation or context that the patient is the influence of the multiplicity of factors and conditions that increase the risk of PU occurrence, in the perspective to contribute with the prevention and reduction of this complication, favoring, thus, the reduction of the period in hospital, of the physical and psychological suffering, as well as the possibility of improvement of the clinical status and consequently, its precocious discharge of the ICU.

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ULCERS OF PRESSURE IN PATIENTS OF INTENSIVE THERAPY UNIT: INCIDENCE AND ASSOCIATION OF RISK FACTORS.

ABSTRACT: This is a descriptive study, with longitudinal delineation, conducted in two ICUs of private hospital in Natal/RN, with 40 admitted patients, with objectives try to identify the PU incidence, according to sex, age, period in hospital, disgnostic hypothesis and localization of PU and to verify the existence of association between risk factors in the PU occurrence. The data collection was conducted in three shifts by a structuralizaed form of comment and physical examination of the skin of the patients. The highest occurrence of PU was in male sex (70%, p = 0,0267 and OR = 4,3 times) in relation to the female one (30%); 60,0% had presented from 1 to 2 PUs after 7 days of admittance in the ICUs, the disgnostic hypothesis predominant had been the respiratory illnesses (42,3%) and the most frequent localizations of PU had been to the sacral region (40,0%) and heels (36,0%). 25 pressure ulcers satege 1 had been diagnosed in 50,0% of the followed patients, with incidence of 50% in the two ICUs.

Key-words: Pressure ulcer; Intensive care unit; Patient.

ULCÈRES DE PRESSION DE PATIENTS DE L'UNITÉ DE LA THÉRAPIE INTENSIF: INCIDENCE ET ASSOCIATION DES FACTEURS DE RISQUE.

RÉSUMÉ: Une étude descriptive, avec la délinéation longitudinale, a été exécutée dans deux UTIs de l'hôpital privé à Natal/RN, avec 40 patients internes. Les objectifs ont été identifier l'incidence des ulcères de pression (UP), selon le

sexe, l'âge, la période de l'internement, l'hypothèse diagnostic et la localisation d' UP et aussi vérifier l'existence de l'association entre les facteurs du risque dans l'occurrence d'UP. L'échantillonnage a été exécuté aux trois tours à l'aide d'un formulaire d'observation et d'examen physique de la peau des patients. La plus grande occurrence d'UP était dans le sexe masculin (70%, $p = 0.0267$ et OR = 4.3 fois) par rapport à les féminines (30%); 60.0% avait présenté de 1 à 2 UP après 7 jours d'internement dans l'UTIs, l'hypothèse diagnostic prédominante (42.3%) a été les maladies respiratoires et les localisations les plus fréquentes d'UP ont été à la région sacral (40.0%) et aux calcanéums (36.0%). 25 UP ont été diagnostiqués au premier étage, avec l'incidence générale de 50% dans les deux UTIs. Les variables comme le sexe masculin, la sédation, la force de friction, la force de la pression, l'agitation psychomoteur et le leucocytose ont présenté différences statistiques significatives quand analysés séparément. Nous vérifions une association de 17.3% entre les facteurs de prédispositions, les facteurs intrinsèques et extrinsèques.

Mots Clés: Ulcères de Pression, Patients, l'unité de la thérapie intensif.

ÚLCERAS POR PRESIÓN EN PACIENTES DE LA UNIDAD DE LA TERAPIA INTENSIVA: INCIDENCIA Y ASOCIACIÓN DE LOS FACTORES DE RIESGO.

RESUMEN: Estudio descriptivo, con la delineación longitudinal, desarrollado en dos UTIs del hospital privado en Natal/Rn, con 40 pacientes internados, con los objetivos de identificar la incidencia de UP, según sexo, edad, tiempo de la internación, hipótesis diagnóstica y localización de UP y verificar la existencia de la asociación entre los factores del riesgo en la ocurrencia de UP. La colección de los datos fue desarrollado en las tres vueltas por medio de un formulario estructurado de observación en la examinación física de la piel de los pacientes. La mayor ocurrencia de UP estaba en el sexo masculino (70%, $p = 0.0267$ y RC = 4.3 veces) en lo referente la femenina (30%); 60.0% habían presentado de 1 a 2 UPs después de 7 días de la internación en UTIs, la hipótesis diagnóstica predominante (42.3%) había sido las enfermedades respiratorias y las localizaciones más frecuentes de UP habían estado en la región sacral (el 40.0%) y calcaneos (el 36.0%). 25 UPs en el estagio 1 habían sido diagnosticadas, con la incidencia general de 50% en las dos UTIs. Las variables como sexo masculino, sedación, fuerza de cisallamiento/fricción, fuerza de la presión, la agitación psicomotora y la leucocitosis habían presentado diferencia estadísticas significativas cuando fueron analizados por separado. Verificamos una asociación de 17.3% entre las condiciones predisponentes, factores intrínsecos y extrínsecos.

Palabras-llave: Úlcera por Pressão, Unidad de la Terapia Intensiva, Pacientes.

ÚLCERAS DE PRESSÃO EM PACIENTES DE UNIDADE DE TERAPIA INTENSIVA: INCIDÊNCIA E ASSOCIAÇÃO DE FATORES DE RISCO.

RESUMO: Estudo descritivo, com delineamento longitudinal, realizado em duas UTIs de hospital privado em Natal/RN, com 40 pacientes internados, com objetivos de identificar a incidência de UP, segundo sexo, faixa etária, tempo de internação, hipótese diagnóstica e localização de UP e verificar a existência de associação entre fatores de risco na ocorrência de UP. A coleta dos dados foi realizada nos três turnos por meio de um formulário estruturado de observação e exame físico da pele dos pacientes. A maior ocorrência de UP foi no sexo masculino (70%, $p = 0,0267$ e RC= 4,3 vezes) em relação ao feminino (30%); 60,0% apresentaram de 1 a 2 UPs após 7 dias de internação nas UTIs, a hipótese diagnóstica predominante foram as doenças respiratórias (42,3%) e as localizações mais frequentes de UP foram à região sacral (40,0%) e calcâneos (36,0%). Foram diagnosticadas 25 UPs em estágio I, com incidência geral de 50% nas duas UTIs. As variáveis como sexo masculino, sedação, força de cisalhamento/fricção, força de pressão, agitação psicomotora e leucocitose apresentaram diferença estatística significativa quando analisadas isoladamente. Verificamos uma associação de 17,3% entre condições predisponentes, fatores intrínsecos e extrínsecos.

Palavras-chaves: Úlcera de Pressão, Unidade de Terapia Intensiva, Pacientes.