

Risk factors associated with pressure ulcers in a public hospital

[Factores de riesgos asociados a úlceras por presión en un hospital público]

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Resumen

El objetivo general fue determinar factores de riesgos asociados a úlceras por presión. Hipótesis: Los Factores de riesgo intrínseco y extrínseco se asocian significativamente en el desarrollo de úlceras por presión. La investigación fue aplicada, correlacional, retrospectiva, cuantitativa, La población fue 180 Historias Clínicas, las cuales 60 pertenecieron a pacientes que presentaron úlceras por presión (Casos) y 120 a pacientes que no presentaron úlceras por presión (Controles). El instrumento fue una ficha de recolección de datos procesándose la información mediante el programa SSPS Vs 22. La prueba estadística Chi cuadrado el P – Valor fue menor a 5%, Los resultados fueron; edad, sexo, movilidad, incontinencia, nutrición, estado de conciencia, grado de dependencia y diagnóstico principal son factores de riesgo intrínseco para aparición de úlceras por presión, también factores extrínsecos; estancia hospitalaria, disponibilidad de equipo y materiales, cambios posturales, higiene corporal, masajes, localización de úlceras por presión y estadios son factores de riesgo para la formación de úlceras por presión. Conclusión: los factores intrínsecos y extrínsecos se asocian significativamente al desarrollo de úlceras por presión en la etapa adulta y adulta mayor.

Palabras clave: Factores de riesgo, Riesgos intrínsecos, Riesgos extrínsecos, Úlceras por Presión.

Abstract

The general objective was to determine risk factors associated with pressure ulcers. Hypothesis: Intrinsic and extrinsic risk factors are significantly associated in the development of pressure ulcers. The research was applied, correlational, retrospective, quantitative. The population was 180 Clinical Histories, of which 60 belonged to patients who presented pressure ulcers (Cases) and 120 to patients who did not present pressure ulcers (Controls). The instrument was a data collection sheet; the information being processed through the SSPS Vs 22 program. The Chi square statistical test, the P - Value was less than 5%. The results were; age, sex, mobility, incontinence, nutrition, state of consciousness, degree of dependence and main diagnosis are intrinsic risk factors for the appearance of pressure ulcers, also extrinsic factors; Hospital stay, availability of equipment and materials, postural changes, body hygiene, massages, location of pressure ulcers and stages are risk factors for the formation of pressure ulcers. Conclusion: intrinsic and extrinsic factors are significantly associated with the development of pressure ulcers in adulthood and older adults.

Keywords: Risk Factors, Intrinsic Risks, Extrinsic Risks, Pressure Ulcers.

1. Introduction

Pressure ulcers (PU) are a very frequent health problem in the hospital setting, usually developing secondary to other diseases, in patients 65 years of age and over, who remain immobilized or prostrate during or before hospitalization due to various intrinsic-extrinsic risk factors that lead to a series of complications.

The incidence of PU is very high in the hospital setting, 60% of ulcerated patients develop the lesion in a hospital center, appearing between the first and second week of admission, in patients immobilized at home the prevalence is 9 to 20% of the general university hospital Valencia-Spain, in the United States more than 50% of pressure ulcers occur in people over 70 years of age, they are associated with prolonged and expensive hospitalizations, up to a year after hospital discharge (Frisdlay, 1998).

The World Health Organization (WHO) considers pressure ulcers an indicator of quality of care, that is, an indicator of the care offered. Pressure Ulcers are classified into four stages: Stage I lesions are associated with a 10-fold increased risk of developing more advanced stage ulcers. The prevalence of stage II and III (PU) is 28% (García et al., 2008).

Patients with PU refer pain describing it as horrible or as a source of suffering, only 2% of patients receive analgesic medication within four hours of having reported pain. A Brazilian study evaluated pain associated with PUs quantitatively and qualitatively, patients referred pain due to PUs, 80% reported that the intensity was constant and of a moderate and burning level, observing high death rates especially in the elderly who develop it, the fact that a PU does not cure or improve has been used as an indicator of health care, has been associated with a death rate among patients confined to bed - wheelchair who have a PU during their hospitalization, being in 60%, while the rate corresponding to patients who do not develop it is 38% (Camacho et al., 2015).

The skin constitutes the body's first defense against disease-causing agents, and in medicine there is high morbidity and mortality in hospitalized patients due to a series of intrinsic and extrinsic factors that put life at risk.

In the Cayetano Heredia - Lima hospital, it varies between 20 - 56%, its appearance causes pain, depression, loss of independence, infection and increased hospital stay and costs (Fernández, 2014).

The appearance of pressure ulcers is closely related to the nursing care provided to the patient, with regard to the hospital level one tenth of admitted patients suffer from (PU), half of these injuries (51.6%) occur in the same hospital, of which 53.3% occurred in the same unit, 23.5% in another and 23.2% did not know from which unit it originated. Medicine units with 18.23%, the percentage of pressure ulcers being higher in general hospitals (Frisdlay, 1998).

The general objective of the present study was to determine the risk factors associated with pressure ulcers at the Víctor Ramos Guardia Hospital in Huaraz. It is necessary to mention that at the local level there are no studies on the subject, and since they are aspects that concern the nursing professional, the reason for this investigation was carried out.

2. Materials and methods

The investigation was applied because it is based on previous investigation antecedents with which the problem was answered. According to its scope, the research was correlational because it allowed a relationship between risk factors and pressure ulcers. Quantitative Approach: due to the fact that numerical data was used to obtain the information that will allow the variables to be measured. The study design was non-experimental: because it was carried out without deliberately manipulating the independent variable, that is, the phenomenon has been observed as it occurred in the context, it was then analyzed, and as a consequence the empirical design of contrast that was proposed was the cross-sectional because the data collection was carried out at a time when applying the instrument and the correlational design was considered as a specific design because the relationship between the categories of the independent variable and the dependent variable has been described.

The population consisted of 180 medical records of hospitalized patients in the medicine service of the Víctor Ramos Guardia Hospital in Huaraz in 2016, which made a total of 180 analysis units of which 60 had a diagnosis of pressure ulcers and 120 without diagnosis of pressure ulcers.

The inclusion criteria were: Complete clinical histories, Clinical histories of patients who presented pressure ulcers hospitalized in the medicine service of the Hospital "Víctor Ramos Guardia" in Huaraz in 2016. The exclusion criteria were: Incomplete and deteriorated clinical histories and Medical records of patients who did not have pressure ulcers hospitalized in the medicine service of the Víctor Ramos Guardia Hospital in Huaraz in 2016.

According to the nature of the study, we worked with all the medical records of hospitalized patients that made up the population of 180, of which 60 medical records were of patients who presented pressure ulcers and 120 medical records were of patients who did not present ulcers due to pressure. pressure, according to the sample to be investigated during the study period.

The technique was documentary analysis. The instrument used for data collection was a printed format called a data collection sheet about risk factors associated with pressure ulcers, for which, data was collected through sources extracted from the clinical history of patients. hospitalized, whose data were emptied into the formats during the study period.

The data collection form consisted of the following: General Data, where the Clinical History Number, the patient's admission date, and the discharge date were recorded. Risk Factors: Extrinsic Factors, distributed in: 05 open response items and 05 single response items. Intrinsic Factors: Contains 02 single response items and 03 open response items.

With the information collected, a database was created, for which the statistical software SPSS version 22 was used. Descriptive statistics were used where the analysis was carried out using a frequency distribution table. To determine the factors, the odds ratio (OR) test was used and the chi-square test (χ^2) was used to test statistical significance with a significance level of 5%.

3. Results

It was observed that 65% of the patients with pressure ulcers are in stage 2, followed by patients with stage 3 (Figure 1); We also observe that 31.7% of the cases of patients with pressure ulcers are located in the sacral area, followed by 18.3% located in the elbow and with the same proportion in the shoulder blade.

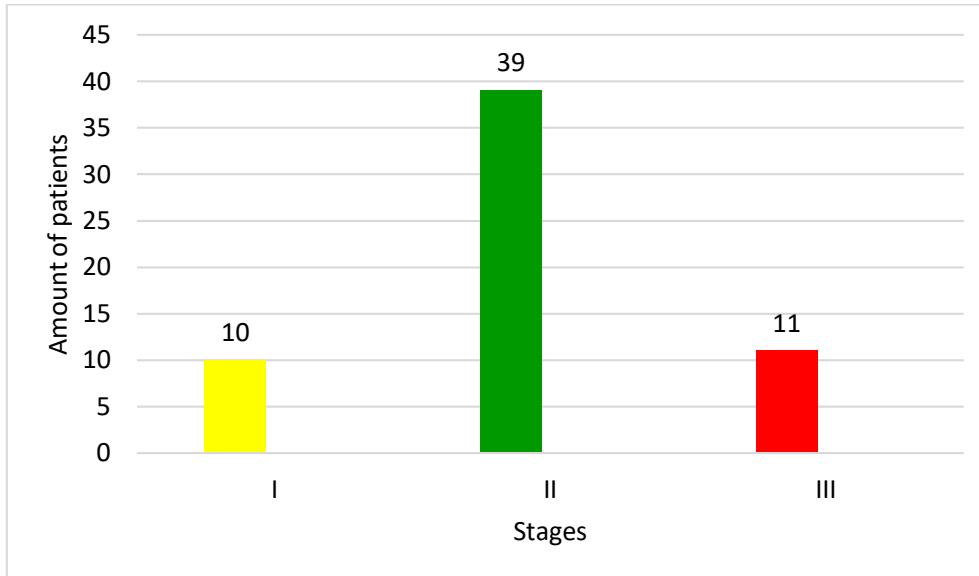


Figure 1. PU stage in Medicine patients, Víctor Ramos Guardia Hospital, Huaraz.

The study considered the risk factors associated with pressure ulcers in the medical service and the factors that were taken into account in the present study were intrinsic factors and extrinsic factors.

Intrinsic risk factors

The results in Table 2 show that the intrinsic risks of PUs in the patients of the Medicine service of the study Hospital were five: age, state of consciousness, mobility, incontinence and main diagnosis.

Age is a risk factor for ulcer development, which indicates that an Adult and Elderly patient is 7 times more likely to develop pressure ulcers than a young patient. In relation to consciousness, a patient in a coma is 3 times more likely to develop pressure ulcers than an alert or lethargic patient.

Regarding mobility, this is a risk factor for ulcer development. An adult patient with immobility is 3 times more likely to develop pressure ulcer than a patient with active or slight mobility. Incontinence is also another factor, with an OR of 2.8. Finally, the main diagnosis of ECT or CVA is 3.8 times more likely to develop pressure ulcers than a young patient.

Table 2. Intrinsic factors of patients with and without pressure ulcer, in the Medicine Service, Víctor Ramos Guardia Hospital, Huaraz, 2016

Intrinsic factors	With PU		Without PU		Total		p	OR
	Nº	%	Nº	%	Nº	%		
Age							0,000	7,632
Young	2	1,1	25	13,9	27	15,0		
Adults	58	32,2	95	52,8	153	85,0		
Consciousness state							0,016	3,143
Alert and Lethargic	49	27,2	112	62,2	161	89,4		
In coma	11	6,1	8	4,5	19	10,6		
Mobility							0,004	3,00
Active and slightly	42	4,5	105	27,2	147	81,7		
Not active	18	9,9	15	8,4	33	18,3		
Incontinence							0,003	2,806
No	15	8,4	58	32,2	73	40,6		
Yes	45	24,9	62	34,5	107	59,4		
Principal diagnostic							0,000	3,857
DM2-EPOC-IRA-ITU-NAC	21	11,7	81	45,0	102	56,7		
ACV-TEC	39	21,6	39	21,7	78	43,3		
Total	60	33,3	120	66,7	180	100,0		

Similar results are found (Jiménez and Vera, 2011) where age is closely related to the risk of suffering from pressure ulcers, the older the age, the greater the risk of suffering from pressure ulcers.

Likewise (Martínez and Sánchez, 2006) in their study they found that there are two groups at higher risk of suffering from PUs: the elderly and patients with prolonged immobility. On the other hand (Izquierdo, 2005) found that the incidence of pressure ulcers in older adults hospitalized in the medical service was that of 47 patients classified as high risk, 16 had some degree of ulcer (34%). Gallo and Pachas (2008) found that 43.4% of the elderly had medium risk, while a considerable proportion was between high and very high risk, (15.5% - 11.8%) respectively for presenting pressure ulcers.

The results in relation to the state of consciousness are also similar to others, in which the coma in patients has a high risk of suffering from PUs during their hospital stay. Similar results are those related to incontinence as a risk factor for developing pressure ulcers (Carrillo, 2004).

Extrinsic risk factors

The results in Table 3 show the extrinsic risk factors for the development of pressure ulcers in the patients of the Medicine service of the Víctor Ramos Guardia Hospital. These are the hospital

stay, availability of equipment and materials, postural changes, hygiene and massages in the adult life stage.

Table 3. Extrinsic factors of patients with and without pressure ulcer, in the Medicine Service, Víctor Ramos Guardia Hospital, Huaraz, 2016.

Extrinsic factors	With PU		Without PU		Total		<i>p</i>	OR
	N°	%	N°	%	N°	%		
Hospital stay							0,000	3,354
< 7 days	29	16,1	91	50,6	120	15,0		
+ than 7 days	31	17,2	29	16,1	60	33,3		
Equipment availability							0,000	23,679
No	11	6,1	101	56,1	112	62,2		
Yes	49	27,2	19	10,6	68	37,8		
Availability of materials							0,000	12,552
No	12	6,6	91	50,6	103	57,2		
Yes	48	26,7	29	16,1	77	42,8		
Postural changes							0,000	5,444
No	18	10,0	84	46,7	102	56,7		
Yes	42	23,3	36	20,0	78	43,3		
Corporal hygiene							0,000	4,154
No	14	7,8	67	37,2	81	45,0		
Yes	46	25,5	53	29,5	99	45,0		
Massages							0,005	2,688
No	14	7,8	54	30,0	68	37,8		
Yes	46	25,5	66	36,7	112	62,2		
Total	60	33,3	120	66,7	180	100,0		

The results obtained in the study could be compared with those of Palma-Kaffo (2009), where the vast majority of nurses do not carry out preventive measures in areas related to excess humidity, education, pressure management and is significantly associated with appearance of pressure sores.

4. Conclusions

- Intrinsic risk factors for pressure ulcers in adulthood are age, consciousness, mobility, incontinence, and primary diagnosis.
- The extrinsic risk factors for pressure ulcers are hospital stay, availability of equipment and materials, postural changes, hygiene and massage in adulthood.

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