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ORIGINAL ARTICLE

Incidence of moisture-associated skin damage in an intensive care unit☆

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KEYWORDS
Moisture-associated skin damage;
Incontinence-associated dermatitis;
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Incidence;
Critical care

Abstract
Objectives: To determine the incidence of moisture-associated skin damage (MASD) in the nappy area, identify predisposing factors and know the preventive measures and nursing records.
Method: Descriptive longitudinal study (June 2014–April 2015) in a general ICU. Patients whose stay >48 h and without skin lesions were included. The skin was assessed daily until the appearance of MASD, discharge or a maximum of 14 days. Demographics, stay, MASD type, incontinence, number and consistency of stools, obesity, Braden scale and prevention were recorded.
Results: 145 patients (66.2% male) were studied, median age was 69 (P_{25} = 56.5, P_{75} = 76) and median length of stay was five days (P_{25} = 3, P_{75} = 11.25), 29.9% were obese. Incontinence-associated dermatitis (IAD) was detected in 26.2% and intertriginous dermatitis (ITD) in 15.9%. MASD was recorded in 23.8%. The variables causing IAD to develop were faecal incontinence, number of stools, liquid stools, and stay. Those for ITD were obesity and score on the Braden scale. Multivariate analysis selected faecal incontinence (OR = 5.4, CI 95%: 1.1–26) and the number of stools (OR = 1.1, CI 95%: 1.0–1.2) as independent variables for developing IAD and obesity (OR = 2.8, CI 95%: 1.0–8.2) and Braden (OR = 0.8, CI 95%: 0.7–1.0) for developing ITD. Prevention to 23.8% of obese and 42.9% of incontinent was performed.
Conclusions: There is a high incidence in MASD. Faecal incontinence and higher number of stools are the risk factors for developing IAD. Obesity and a lower score on the Braden scale may affect susceptibility to ITD. Recording of MASD and its prevention in patients at risk is insufficient.

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PALABRAS CLAVE
Lesiones cutáneas asociadas a la humedad;
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Incidencia;
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Incidencia de lesiones cutáneas asociadas a la humedad en una unidad de cuidados intensivos

Resumen
Objetivos: Determinar la incidencia de las lesiones cutáneas asociadas a la humedad (LESCAH) en el área del pañal, identificar los factores predisponentes y conocer las medidas preventivas y registros realizados.
Metodología: Estudio descriptivo longitudinal (junio de 2014-abril de 2015) en una UCI polivalente. Se incluyeron pacientes con estancia >48 h y sin lesiones cutáneas. Se valoró diariamente la piel hasta la aparición de LESCAH, alta o un máximo de 14 días. Se registraron datos demográficos, estancia, tipo de LESCAH, incontinencia, consistencia y número de deposiciones, obesidad, escala Braden y prevención.
Resultados: Se estudiaron 145 pacientes (66,2% hombres), la mediana de edad fue 69 (P_{25} = 56,5-P_{75} = 76) años y la estancia de 5(P_{25} = 3-P_{75} = 11,25) días, el 29,9% presentó obesidad. Se detectó un 26,2% de dermatitis asociada a la incontinencia (DAI) y un 15,9% dermatitis intertriginosa (DI). Se registró el 23,8% de las LESCAH. Las variables relacionadas con la DAI fueron la incontinencia fecal, número de deposiciones, heces líquidas y estancia. Para la DI fueron la obesidad y la puntuación en la escala Braden. El análisis multivariable seleccionó la incontinencia fecal (OR = 5,4; IC 95%:1,1−26) y el número de deposiciones (OR = 1,1; IC:1,0-1,2) como variables independientes para desarrollar DAI y la obesidad (OR = 2,8; IC 95%:1,0-8,2) y escala Braden (OR = 0,8; IC 95%:0,7-1,0) para desarrollar DI. Se realizó prevención al 23,8% de los obesos y al 42,9% de los incontinentes.
Conclusiones: Existe una elevada incidencia en LESCAH. Tener incontinencia fecal y mayor número de deposiciones son factores de riesgo para desarrollar DAI. La obesidad y una puntuación menor en la escala Braden predisponen a sufrir DI. El registro de las LESCAH y la prevención en pacientes de riesgo es insuficiente.

What is known/what is the contribution of this?

Moisture-Associated Skin Damage is considered to be lesions related to dependency. Critically ill patients have a higher risk of developing these. However, this has barely been studied in this population group.

Moisture-Associated Skin Damage is much more common in patients admitted to the ICU. Critically ill patients are vulnerable to lesions as a result of incontinence, but there are other causes too, such as sweating, to which they are also exposed. Moisture is a factor that is overlooked by the people in charge of caring for patients. The Braden scale allows us to assess the exposure of the skin to moisture in general terms.

Implications of the study?

It is necessary to raise awareness among professionals about Moisture-Associated Skin Damage, especially intertriginous dermatitis. We need scales to assess the risk of exposure to the different sources of moisture, as well as to examine how the bedsore risk scales work to set the predictive value for this type of lesions.

Introduction

The skin is the organism's first barrier and there are various factors that can damage it. Among these we find factors that are intrinsic to old age, patients' medical history, nutritional status or incontinence, *inter alia*, and external factors such as prolonged immobility, pressure, friction and moisture.[1] Patients admitted to Intensive Care Units (ICU) experience most of these risk factors.

El Grupo Nacional para el Estudio y Asesoramiento en Úlceras por Presión y Heridas Crónicas ('The Spanish National Group for the Study and Consultancy on Bedsores and Chronic Wounds', GNEAUPP in its initials in Spanish) published its Technical Document No. II regarding lesions connected with dependency in 2014.[2] This document describes lesions of various aetiologies, such as bedsores, rubbing or friction and Moisture Associated Skin Damage (MASD). The latter were not long ago described and differentiated from bedsores,[3] and they are described as ''a lesion on the skin (which does not usually affect the adjacent tissues) which appears as an inflammation (erythema) and/or the erosion of the skin, caused by prolonged exposure (continuous or almost continuous) to various sources of moisture which can cause skin irritation (for example: urine, faeces, exudate from wounds, stoma or fistula effluents, sweat, saliva or mucus).''[2]

Based on the work of the expert team led by Gray,[4] in which the evaluated strategies for assessing,