ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL IN DERME

POINT PREVALENCE OF SKIN TEARS AND ASSOCIATED FACTORS IN CLINICAL PATIENTS

PREVALENCIA PUNTUAL DE LESIÓN POR FRICCIÓN Y FACTORES ASOCIADOS EN PACIENTES CLÍNICOS

PREVALÊNCIA PONTUAL DE LESÃO POR FRICÇÃO E FATORES ASSOCIADOS EM PACIENTES CLÍNICOS

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ABSTRACT
Introduction: Skin tears are defined as traumatic wounds deriving from friction alone, bruising, or skin shearing. These injuries are often encountered among older adults and can progress to difficult-to-heal wounds. Their epidemiology still needs to be fully understood; hence, further studies are needed. **Objective:** to identify the point prevalence of skin tears and its associated factors in patients admitted to a public university hospital in the Midwest region of Brazil. **Method:** A descriptive cross-sectional prevalence study was carried out in June 2022. The study was developed with 23 patients admitted to the Medical Clinic of a hospital related to the Unified Health System (SUS). Seven of these patients were identified as at risk of developing skin tears. Data was collected through physical examination of the skin and information from patient records. Simple descriptive statistics were used for data analysis, calculating means and percentages. **Results:** The average age of hospitalized patients was 52.3 years, with most male patients (52.1%). The point prevalence of skin tears was 57.2%, common in patients with comorbidities and nutritional changes. All injuries found were type 3. **Conclusion:** Compared to similar studies, the prevalence was high. Associated factors such as having more than one underlying health condition in patients and polypharmacy were also found. It was identified that the conduct and interventions for preventing and treating these injuries were inadequate. These findings indicate the need for providing the care team with educational actions on this topic.
Keywords: Stomatherapy; Friction; Wounds and Injuries; Elderly; Nursing Care.

RESUMEN
Introducción: las lesiones por fricción se definen como heridas traumáticas resultantes de fricción, contusión o corte de la piel. Estas lesiones son comunes en las personas mayores y tienen el potencial de convertirse en heridas difíciles de curar. Su epidemiología aún no se comprende completamente, por lo que son pertinentes estudios con este propósito. **Objetivo:** identificar la prevalencia específica de lesiones por fricción, así como los factores asociados a esa condición, en pacientes internados en un hospital público universitario de la Región Centro-Oeste de Brasil. **Método:** estudio transversal, de prevalencia puntual, realizado en junio de 2022. Desarrollado con 23 pacientes ingresados en el sector de Clínica Médica, de un hospital vinculado al Sistema Único de Salud, de estos, 7 fueron identificados en riesgo de desarrollar lesiones por fricción. Los datos fueron recolectados mediante examen físico de la piel e información en historias clínicas. Para el análisis de los datos se utilizó estadística descriptiva simple, con cálculo de medias y porcentajes. **Resultados**: la edad promedio de los pacientes hospitalizados fue de 52,3 años, siendo la mayoría de los pacientes del sexo masculino (52,1%). La prevalencia puntual de lesiones por fricción encontrada fue del 57,2%, siendo frecuentes las comorbilidades en los pacientes, así como las alteraciones nutricionales. Todas las lesiones encontradas fueron tipo 3. **Conclusión:** la prevalencia encontrada fue alta, en comparación con estudios similares. Se identificó que las conductas e intervenciones para la prevención y tratamiento de estas lesiones no fueron las adecuadas. Estos hallazgos denotan la necesidad de acciones educativas sobre este tema para el equipo de atención.
Palabras clave: Estomaterapia; Fricción; Lesiones y Heridas; Ancianos; Atención de Enfermería.

RESUMO
Introdução: as lesões por fricção são definidas como feridas traumáticas resultantes de fricção, contusão ou cisalhamento da pele. Estes agravos são comuns em idosos, apresentando potencial de tornarem-se feridas de difícil cicatrização. A epidemiologia destas ainda não é totalmente esclarecida, desta forma, estudos com esta finalidade são pertinentes. **Objetivo:** identificar a prevalência pontual de lesão por fricção, bem como, os fatores associados a este agravo, em pacientes internados em um hospital universitário público da Região Centro-Oeste do Brasil. **Método:** estudo transversal, de prevalência pontual, realizado em junho de 2022. Desenvolvido com 23 pacientes internados no setor de Clínica Médica, de um hospital vinculado ao Sistema Único de Saúde. Destes, 7 foram identificados em risco para o desenvolvimento de lesão por fricção. Os dados foram coletados através de exame físico da pele e das informações presentes nos prontuários. Para análise dos dados, utilizou-se estatística descritiva simples, com cálculo de médias e percentuais. **Resultados:** a idade média encontrada dos pacientes internados foi de 52,3 anos, sendo a maioria dos pacientes do sexo masculino (52,1%). A prevalência pontual de lesão por fricção encontrada foi de 57,2%, sendo comum nos pacientes comorbidades, assim como, alterações nutricionais. Todas as lesões encontradas eram do tipo 3. **Conclusão:** a prevalência encontrada foi elevada, comparada a estudos semelhantes. Encontrou-se como fatores associados a presença de mais de uma patologia de base nos pacientes e a polifarmácia. Identificou-se que as condutas e intervenções para a prevenção e tratamento destas lesões não estavam adequadas. Estes achados denotam a necessidade de ações educativas sobre este tema, para a equipe assistencial.
Palavras-chave: Estomaterapia; Fricção; Ferimentos e Lesões; Idoso; Cuidados de Enfermagem.

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INTRODUCTION

Wounds are common occurrences in health care units, in which injuries such as diabetic ulcers, venous ulcers, Pressure Injury (PI), and Skin Tear (ST) are the most frequent, becoming a significant public health problem. The internationally known Skin Tears, translated to Portuguese as Lesões por Fricção, Friction Injuries (LF), will be the injuries addressed in this study. They are defined as traumatic wounds originating from friction alone, bruising, or skin shearing, leading to its layers' ripping. This rupture can be of partial thickness when the epidermis and dermis are disrupted or total thickness when it affects the hypodermis and fascia. The body regions most affected by skin tears are the arms, elbows, backs of the hands, and legs[1,2].

Historically, this type of injury has yet to be adequately appreciated and identified regarding its etiology by patients and caregivers. However, it can progress to wounds that are difficult to heal and manage if not treated assertively. Such injuries have a peculiarity of more frequently occurring in extremes of age, such as senile individuals or newborns. As the skin loses its elasticity, it becomes drier and more vulnerable due to aging. Thus, skin tears become even more common in the elderly, especially in the terminal stages of life[2,3].

A prospective study carried out between 2014 and 2015 in Western Australia in four long-term care institutions sought to identify the variables that were significantly associated with the risk of skin tears. The study found the following: male gender, records of skin lesions and falls, clinical elastosis, and purpura. Patients with a history of skin injuries were almost four times more likely to develop skin tear, just as individuals with a history of falls in the last three months were more likely to develop this injury[4].

Other risk factors that must be considered are structural changes to the skin that are not visible as a result of aging itself. These changes predispose to an increased risk of skin injuries and tears. This is because collagen, which contributes to maintaining structured and well-functioning blood vessels, decreases its production with aging, contributing to the appearance of purpura, which is related to the risk of developing skin injuries[4].

These wounds harm the quality of life of the affected people and their families. At the same time, their increasing incidence rates, especially in senile age, promote major economic problems in the health sector[1]. Therefore, there is a need to understand the associated etiologies better and predict the risk of developing skin tears in individuals[4].

In Brazil, there are two Skin Tear classification systems cross-culturally adapted to the Portuguese language and validated in the literature: the Skin Tear Audit Research (STAR) and the International Skin Tear Advisory Panel (ISTAP). These classifications help nurses differentiate the types of skin tears and carry out appropriate management of this injury[5,6].

STAR was developed by an Australian team led by Professor Keryln Carville and was

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based on a modified version of the system proposed by Payne and Martin in the early 1990s[5]. This method classifies skin tears into five categories: 1a - The edges can be realigned to their normal anatomical position (without undue stretching), having a bed with skin or flap that is not pale, dusky, or darkened; 1b - The edges can be realigned to the normal anatomical position, however, the skin or flap with pale or darkened appearance is visible on the bed; 2a - The edges cannot be realigned and the bed has tissue that is not pale or darkened; 2b - the edges cannot be realigned and the lesion presents pale, dusky or darkened tissue; 3 - The skin flap is completely absent[7].

The ISTAP classification system, which had its content validated in Brazil in 2018, is an objective method that classifies skin tears into three types: Type 1- Without skin loss, linear or flap tear that can be repositioned to the wound bed; Type 2- Partial flap loss, which cannot be repositioned to the wound bed; Type 3- Total flap loss, with exposure of the entire wound bed. Currently seeking standardization in scientific publications on this topic, experts recommend using the ISTAP system to evaluate and classify skin tears[2,6].

The role of the health professional is essential in the care, prevention, and assistance of Skin Tears. Among the care actions, it is important to highlight and prioritize holistic care, considering the individual's physical, social, emotional, and spiritual needs[1].

During this assessment, which is carried out during the Nursing appointment stage through anamnesis and physical examination, it is important to assess the patient's general health status, checking the degree of cognitive behavior, sensory, auditory, and visual changes, mobility, dependence on aid for carrying out daily activities, changes in the skin's protective barrier, and the patient's history of falls and skin tears or other skin injuries[8].

Nursing is one of the health professions closest in contact with patients. It is also known to be responsible for the care of their skin, preventing injuries, and the health recovery of individuals with skin conditions[1]. The Systematization of Nursing Care - Sistematização da Assistência de Enfermagem (SAE) and the implementation of the Nursing Process is the duty of the Nurse according to the COFEN Resolution No. 358/2009, regarding the implementation of the SAE and the implementation of the Nursing Process in any healthcare institution, whether public or private[9,10]. Therefore, it is up to the Nurse to prescribe preventive measures, evaluate the injury, prescribe adequate wound dressing to improve the condition according to the category of skin tear identified in the patient, as well as prescribe other care that will evolve toward the recovery of the patient’s health and their injury[1,11].

Aiming to adopt practices based on scientific evidence, health institutions can adopt protocols, which become tools for quality management, process organization, and adequate prescription. These guiding documents for care practice are essential since, with the increase in

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the incidence of this injury, the risk of developing associated skin infections also increases, which leads to an increase in costs related to the care provided and an increase in hospitalization time. [1.11].

Among the guidelines that professionals must provide to the patient and family, it can be listed care for the promotion of patient safety regarding the risk of falls and trauma, protection from self-mutilation, encouragement regarding nutritional intake and nutritional monitoring when available, monitoring of the effects of the medications used, providing a safe environment, evaluating the clothing used and its accessories, all of which aim to create a safe environment. Furthermore, the importance of skin care can be highlighted by adopting soaps suitable for bathing and the use of specific moisturizers for the skin, without dyes or perfumes[8].

The current numbers of this injury are unclear in Brazil, as it is often underreported or misdiagnosed. Due to this, the target of the problem in practice and the financial impact on healthcare systems still need to be fully known and need to be considered carefully. Studies related to the incidence of skin tears are still insufficient, and prevalence calculations are variable. However, their occurrence is greater than Pressure Injuries (PI), and the trend in the coming years is for an increase in the number of cases[2].

This study aimed to identify the specific prevalence of skin tears and the factors associated with this condition in patients admitted to the Medical Clinic of a public university hospital in the Midwest Region of Brazil. As a guiding question for this research, it was adopted: What is the skin tear rate and the classification of these injuries in patients admitted to a university hospital?

OBJECTIVE

To identify the point prevalence of Skin Tears and the factors associated with this condition in patients admitted to the Medical Clinic of a public University Hospital.

METHODS

A descriptive cross-sectional prevalence study was carried out in the medical clinic of a University Hospital in Dourados, MS, Brazil, related to the Unified Health System (SUS). This institution has 191 medium and high-complexity hospitalization beds, serving as a reference model for 34 municipalities, with a macro-region estimated at 800 thousand people. The Medical Clinic has 34 beds designed to care for patients with various pathologies, such as infectious-parasitic, neurological, cardiac, digestive, and autoimmune diseases. Given the comorbidities covered, patients at risk of falls and restricted mobility and activity are commonly found, as well as elderly patients.

Data collection took place on a date chosen in June 2022. The inclusion criteria were patients over 18 years of age. As exclusion criteria, the following were adopted: indigenous patients. Indigenous people were excluded due to current legislation in Brazil, which recommends that studies with this population be sent to

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CONEP, and this research was not sent for consideration by this commission.

The study sample was non-probabilistic for convenience purposes. Data were collected by visiting the patients' beds, carrying out a physical examination, and consulting their medical records to collect sociodemographic data, related pathologies, and medications used. The physical examination performed aimed at identifying skin tears and categorizing them according to the ISTAP Scale, being carried out by an Enterostomal Therapy (ET) Nurse with clinical practice in caring for patients with wounds, as well as with nursing students from a Stomal Therapy course who jointly deepen their knowledge on the topic prior to carrying out the research[6]. Subsequently, the data were tabulated and analyzed in statistical software, using simple descriptive statistics, in the Statistical Package for Social Science (SPSS), version 21.0.

The prevalence calculation was based on a similar skin tear study and adopting precepts from the area of epidemiology, which state that the ideal is for studies that look for the occurrence of diseases to identify the problem in question, given a population at risk of said diseases. Therefore, the following formula was used: number of patients who had skin tears, divided by the population at risk of having skin tears at the time of data collection[12-13].

This study met ethical precepts, obtaining approval from the institutional research committee and assent from the Research Ethics Committee of the Federal University of Grande Dourados through Opinion Report no. 3.899.596 and CAAE no. 26640719.2.0000.5160.

RESULTS

A total of 29 patients were hospitalized in the clinics on the data collection date. However, two were under 18, and four were indigenous. Therefore, six patients were excluded from the research according to the described inclusion criteria. Twenty-three individuals participated, with an average age of 52.3 years. The prevalent sex was male, accounting for 12 patients (52.1%) compared to 11 female patients (47.8%). Of this total, seven were at increased risk for skin tears (30.4%) due to skin aging and advanced age, over 65 years.

Regarding the group of patients at risk, the focus of the study, a prevalence of patients in the age group of 70 to 79 years old (43.0%) was identified, followed by the age group of 65 to 69 years old and 80 years old or over (both with percentages of 28.5%). The prevalent sex was male (71.4%). Concerning marital status, three were single, three were widowed (both categories with 43.0%), and the remainder were married (13.0%). In terms of education level, the following was obtained: the majority had incomplete primary education (42.9%), followed by complete primary education (28.6%), completed higher education (14.3%), and lastly, the ones that were unable to inform (14.3%).

Among the comorbidities found in patients at risk for developing skin tears, it was possible to identify several conditions, such as Systemic Arterial Hypertension (85.8%) and

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Type II Diabetes Mellitus (57.2%), among others. The clinical characteristics of the patients, such as the type of diet used during hospital stay, use of oxygen therapy, or long-term indwelling catheter, are described in Table 1.

Table 1. Comorbidities and associated clinical characteristics presented in patients at risk of or with Skin Tears, Dourados (MS), Brazil – 2022. N=7. (to be continued)

Comorbidities and patient characteristics	f	%
Underlying diseases*		
Type II Diabetes Mellitus	4	57.2
Chronic Obstructive Pulmonary Disease	3	42.9
Systemic Arterial Hypertension	6	85.7
Hypothyroidism	3	42.9
Congestive Heart Failure	2	28.6
Chronic Kidney Disease	1	14.3
Malnutrition	1	14.3
Atherosclerosis	1	14.3
Stroke Sequelae	1	14.3
Smoking	1	14.3
Previous Acute Myocardial Infarction	1	14.3
Health Condition that led to hospital admission		
Decompensated Congestive Heart Failure	2	28.6
Health Condition that led to hospital admission		
Chronic Kidney Disease	1	14.3
Lower Gastrointestinal Bleeding	1	14.3
Hypoglycemia	1	14.3
Acute Kidney Injury	1	14.3
Pneumonia	1	14.3
Diet Type		
Oral Diet	6	85.7
Pasty Oral Diet	1	14.3
Use of Oxygen Therapy		
Not using oxygen therapy	5	71.4
Oxygen support via nasal catheter	2	28.6

Table 1. Comorbidities and associated clinical characteristics presented in patients at risk of or with Skin Tears, Dourados (MS), Brazil – 2022. N=7. (end)

Comorbidities and patient characteristics	f	%
Use of long-term indwelling catheter		
Not using long-term indwelling catheter	5	71.4
Using indwelling catheter	2	28.6

Caption: N = total number of patients at risk of skin tears; f = total number of patients who presented the condition.

The studied sample investigated the pharmacological classes of medications in use among patients. In addition, it sought to observe an association of different medications in medical prescriptions, with proton pump inhibitors being the most prevalent drug (85.7%), followed by anticoagulants (57.1%). The findings related to the medications in use are presented below in Table 2.

Table 2. Medications used by patients at risk of developing skin tears, distributed by pharmacological class, Dourados (MS), Brazil – 2022. N=7.

Medications in use by pharmacological class	f	%
Antibiotics	2	28.6
Anticoagulants	4	57.2
Anticonvulsants	2	28.6

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Antidepressants	3	42.9
Non-steroidal Anti-inflammatory Drugs	4	57.2
Beta-blocker Antihypertensive	2	28.6
ACE Antihypertensive	3	42.9
Calcium Channel Blockers	2	28.6
Inhaled bronchodilator	2	28.6
Diuretic Medicines	3	42.9
Glucocorticoids	4	57.2
Thyroid Hormone	3	42.9
Proton Pump Inhibitors	6	85.7
Vasodilators	2	28.6

Caption: N = total number of patients at risk of skin tears; f = total number of patients who use the medication.

Regarding the point prevalence of skin tears, the main focus of this study, four patients with skin tears were identified (57.2%). This research also sought to identify the classification of injuries that were found, the place where the injury appeared (from home or resulting from hospital admission), the body location of the skin tears, the presence or absence of wound dressings at the time of patient assessment, and the types of wound dressings adopted by the team. These findings are presented in Table 3.

Table 3. Point prevalence of skin tears and information about the identified injuries. Dourados (MS), Brazil – 2022. N=7 (to be continued)

Information related to identified skin tears	f	%
Skin tears presence		
Yes	4	57.2
No	3	42.9
Injury classification according to ISTAP		
Type III skin tear	4	57.2
No skin tear	3	42.9

Table 3. Point prevalence of skin tears and information about the identified injuries. Dourados (MS), Brazil – 2022. N=7 (end)

Information related to identified skin tears	f	%
Quantity of skin tears identified per patient		
One	2	28.6
Two	2	28.6
None	3	42.9
Body location of skin tears		
In upper limbs	3	42.9
In upper and lower limbs simultaneously	1	14.3
No skin tear	3	42.9
Presentation of skin tears during the physical exam		
Open skin tear without appropriate dressing	2	28.6
Skin tears with occlusive dressings made of traditional gauze and bandage	2	28.6
No skin tear	3	42.9
Prescribed products for skin tear treatment		
EFAs	2	28.6
There were no prescription products for treatment	2	28.6
No skin tear	3	42.9
Location of injury appearance		
Injury originating from the unit	2	28.6
Injury originating from the community	1	14.3
Injury originating from another hospital	1	14.3
No skin tear	3	42.9

Caption: N = total number of patients at risk of skin tears; f = total number of patients that presented skin tears of characteristics of skin tears.

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In the group of patients at risk for developing skin tears due to advanced age (over 65 years), it was decided to list care related to the prevention or treatment of these injuries among the valid Nursing prescriptions on the data collection date. The following interventions were identified as the most prevalent practices: taking the patient to the bath, using neutral soap, keeping sheets dry and stretched, and encouraging diet intake. Other interventions adopted are listed in Table 4.

Table 4. Description of nursing care aimed at skin tears in patients at risk of developing the injury. Dourados (MS), Brazil – 2022. N=7 (to be continued)

Identified Nursing Care aimed at skin tears	f	%
Assisting the patient with the bath and using neutral soap for the bath	4	57.1
Perform a bed bath with neutral or acidic pH soap	2	28.6
Stimulate water intake	2	28.6
Stimulate and evaluate oral dietary intake	4	57.1
Keep bed sheets dry and stretched	4	57.1
Inspect the skin daily	2	28.6
Assess and report changes in color and temperature of extremities	1	14.3
Protect bony prominences with appropriate dressings	1	14.3
Reposition the bed every two hours	3	42.9
Position the patient with the bed headboard up to 30 degrees	2	28.6
Skin moisturizing	4	57.1
Keep heels elevated from the bed positioned with wedge pillows	1	14.3
Guide the patient and companion regarding the risk of falls	2	28.6
Keep bed wheels locked to prevent falls	2	28.6
Implement care when performing venipuncture	1	14.3

Caption: N = total number of patients at risk of skin tears; f = total number of patients with the prescribed care.

In the focused unit of this study (Medical Clinic sector), nurses commonly apply predictive validity regarding the risk of falls (Morse Fall Scale) and pressure injuries (Braden Scale) [14-15]. Given the application and evaluation of these tools, these data were collected from patients at risk for this injury. Regarding the risk of falls, six patients were at risk (85.8%). For the risk of developing pressure injuries, four patients were at risk for PI (57.2%). The classification of patients according to these scales regarding risk stratification and the subscales are presented in Table 5.

Table 5. Score obtained on the Braden and Morse Fall Scales, respectively, for patients with skin tears or at risk of developing skin tears, and on each Braden subscale. Dourados (MS), Brazil – 2022. N=7

Clinical data regarding the risk of falls and pressure injuries	f	%
Morse Fall Scale		
Low risk for falls	2	28.6
Moderate risk for falls	2	28.6
High risk for falls	2	28.6
No risk for falls	1	14.3
Braden Scale		
High risk of PI	1	14.3
Moderate risk of PI	2	28.6
At risk of PI	1	14.3
No risk for PI	3	42.9
Altered scores (less than 4) on the Braden subscales		
Sensory perception subscale	4	57.1
Moisture subscale	4	57.1

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Activity subscale	5	71.4
Mobility subscale	4	57.1
Nutrition subscale	6	85.7
Friction and shear subscale	4	57.1

Caption: N = total number of patients at risk of skin tears; f = total number of patients classified according to the Braden and Morse Fall Scales.

DISCUSSIONS

Hospitalization is known to significantly increase the likelihood of developing skin injuries, including skin tears, in patients, especially in the elderly**(2)**. This study was carried out in a hospital environment, and it was found that of the total sample (N=23), seven individuals were at increased risk for developing skin tears due to advanced age (30.4%).

The study's average age of hospitalized patients was 52.3 years, with the prevalent sex being male (52.1%). When focusing on the risk group for developing skin tears, the prevalent age group was identified as 70 to 79 years old, with males remaining the majority (71.4%). Regarding the level of education of elderly patients, it was identified that three had incomplete primary education (42.9%), and two (28.6%) had completed primary education. Some studies indicate that the lack of adequate education and information impacts access to health services and can be considered a problem for these patients, predisposing them to developing health problems. Similarly, a lack of knowledge about skin tears is identified as one of the factors associated with their appearance; thus, a reduced level of education can affect patients' self-care or the care caregivers provide in the face of this injury[4, 16-17].

A similar study performed in the Intensive Care Unit (ICU) of a Teaching Hospital in Teresina/PI found an equivalent result in which the average age was over 70. As for gender, like in this study, males prevailed (53.5%)[16]. International research also found that males were three times more likely to develop skin tears than females. This same study reports that an explanation for these findings in that study was related to greater exposure to UV radiation by men[4].

It is known that skin tears are linked to intrinsic and extrinsic risk factors. Therefore, these factors were sought to be identified in the participants. Regarding underlying diseases, the majority of patients at risk were diagnosed with Systemic Arterial Hypertension (85.1%) and Type II Diabetes Mellitus (57.2%), where it was common to have more than one associated pathology. This finding is similar to other studies addressing this injury[16-17].

Unlike this study, which found that the majority of patients were on an oral diet, a similar study on skin tears, carried out in the Southern Region of Brazil, found that the prevalence of skin tears was statistically higher in patients on enteral feeding (25% versus 8.6%) and identified that among patients with already established skin tears, seven were using oxygen therapy (16.7%)[18].

In patients at risk for skin tears, a variety of prescribed drugs were noticed, such as proton pump inhibitors, anticoagulants, glucocorticoids,

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non-steroidal anti-inflammatory drugs, antidepressants, and antihypertensives, among others. An important variable to be observed is the use of different medications, as some directly affect tissue tolerance and can also cause drowsiness, vertigo, dizziness, or even agitation. Patients who use some medications such as antihypertensives or diuretics may experience vertigo, increasing the risk of falls and concomitant development of skin tears since one of the significant causes of skin tears is trauma[2,11].

Brazilian research on the prevalence of skin tears in a hospital environment found that patients who had skin tears used antidepressants (35.3%), antihypertensives (20.8%), diuretics (24.2%), and corticosteroids (15.4%)[18], just as the use of various medications is commonly identified in other publications as a risk factor for skin tears [2,11].

Regarding the point prevalence of skin tears, this research identified a prevalence of 52.2%. Given the evaluation regarding the ISTAP classification of the skin tears found, all were type III (52.2%), this class being the one with the most significant tissue involvement and exposure of the dermis. Other studies obtained lower values related to the prevalence of skin tears. Similar research was carried out in Brazil, with patients admitted to infirmary and ICU wards, which found a prevalence of 12.2% (n=18)[18]. A recent international study sought to identify point prevalence in hospitalized adult patients and obtained a rate of 4.1% (n=17)[12]. Another international work found a point prevalence of skin tears of 8.1% in hospitalized patients[19].

A review study of epidemiological data and other pertinent information related to skin tears identified a prevalence that varied between 1.1% and 19.8% and an incidence of skin tears between 2.2% and 62.0% in studies conducted in different countries[20].

During the physical examination, open wounds without any dressing were identified. These skin tears were exposed to direct contact with the sheet and ambient air, being susceptible to infections in two patients. In two others, an occlusive dressing made of traditional gauze and bandages was used. It should be noted that these practices are not in line with what is recommended in the literature on skin tear treatment[11].

Concerning the Nursing prescription, two medical records provided guidance on performing an occlusive dressing with topical application of essential fatty acid (EFA) associated with traditional gauze and bandage, while for the other two patients, there was no prescription related to care for the injury.

It is recommended that the dressing used for skin tears be easy to apply, atraumatic for the skin flap and the perilesional skin, and does not cause pain when removing and/or changing the dressing. The dressing should also provide a protective barrier against skin shearing and manage moisture and exudate, allowing long-term use[11,20].

If the skin flap is viable, the main goals in care management are preserving the flap,

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protecting the surrounding tissue, reapproximating the wound edges without widening the skin, and reducing the risk of infection. Identifying the dressing with an arrow to indicate the preferred direction of removal and considering the use of saline solution, emollients, or adhesive remover to remove and minimize trauma to the periwound[8,11,16].

Several products can be used for the indicated dressing for treatment, with some precise indications regarding skin tears and cyanoacrylate adhesives, aiming to bring the edges and flap closer together and promote healing. In addition to this indication, polyurethane foam dressings with a silicone adhesive layer and edges are recommended due to their atraumatic removal. Different products can also be used similarly for different types of wounds[2,11].

It is worth highlighting the products not indicated for the topical treatment of skin tears: iodine-based dressings as they do not favor the maintenance of a moist bed; transparent and hydrocolloid film coverings due to their strong adhesiveness which can lead to skin breakdown; adhesive sutures and traditional gauze as they do not support the skin flap, increasing the risk of loss and tissue necrosis[11].

The present work observed that the most prevalent body location of injuries was in the upper limbs (42.9%). Although skin injuries can occur in any anatomical location, they are ubiquitous on extremities, such as the upper and lower limbs and on the back of the hands[2,8,11,20].

An equivalent study carried out in a hospital environment in Brazil identified that there was a higher frequency (79.3%) of skin tears in the upper limbs, followed by lower limbs (17.2%)[18]. On the other hand, another work on the prevalence of skin tears in the same country observed that the prevalent location was in the lower limbs (46.5%)[16]. Research carried out in a tertiary hospital in Turkey noticed a similar finding to the present study, in which the majority of skin tears were located in the upper limbs (17.6%) and hands (76.5%)[12].

Identifying this as a critical skin injury and different from others, the implementation of specific preventive treatment-oriented care for skin tears is crucial[2]. Medical records analysis of patients at risk or already stricken with skin tears identified no appropriate interventions aimed at treating skin tears, such as rapprochement of the edges when relevant, cleaning the wound, or even taking care with the indicated type of adhesive, as well as the indication to adopt silicone-based products[4,11].

In addition to these interventions, there is a need for other care such as protection against falls or trauma, promotion of a safe physical environment for the patient that avoids trauma and falls, providing health guidance on appropriate care, carrying out daily inspection of the skin and encouraging patient and family involvement in this care, paying attention to nails, avoiding keeping them long and not using ornaments on the hands when providing care to these patients. The healthcare team must

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maintain a safe environment, providing care that avoids skin tears and shearing[2,11].

Guidance and encouragement for the use of preventive clothing to protect against skin tears by wearing long-sleeved clothing or shin guards in agitated and combative patients is also an extremely important action that must be implemented in their care to avoid bumps, blows, and traumas that lead to skin tears [3,11].

Other pertinent results from this study are related to the data from medical records regarding the risk of falls and pressure injuries in the group of patients at risk. These data were evaluated through predictive validity, such as the Braden and the Morse Fall Scales. A high risk of falls was observed, in which 85.8% were at risk. Regarding the Braden Scale, four patients were at risk of developing pressure injuries (57.2%). Regarding the subscales, it was identified among patients at risk for skin tears that 85.7% had a low score on the nutrition subscale, and 71.4% had a lower score on the activity subscale. Studies on this topic similarly identify traumas and falls as highly relevant factors for the emergence of skin tears, as well as poor patient nutrition[2,4,11,19].

Therefore, an adequate systematization of care for this population is needed, emphasizing care related to skin, nutrition, polypharmacy, comorbidities, lifestyle, socioeconomic risks, and patient and family involvement in care, among other things [2, 8, 11, 19].

A publication focused on identifying the knowledge produced about skin tears through an integrative literature review noticed as pertinent care in the face of this injury or the risk thereof: maintenance of the patient's organic and tissue homeostasis, with a focus on nutrition and appropriate hydration for each individual, thus providing better tissue tolerance; promoting a safe environment; adequate skin moisture and use of medical adhesives composed of silicone, when necessary[21]. Any adhesive product used on the skin, such as tapes, dressings, ostomy pouching systems, medications, and electrodes, is considered a medical adhesive. Medical adhesives are related to the appearance of skin injuries, including skin tears[22].

The limitations of this work are the small sample size and the data collection restriction to only one health institution. It is recommended that similar research be conducted in other settings and in this institution, with the entire population, to identify the actual point prevalence. Furthermore, similar multicenter studies can be conducted in Brazil, highlighting the national scenario, giving greater visibility to this injury in scientific publications, and assisting in elaborating documentation and policies related to the topic.

CONCLUSIONS

This study found a point prevalence of skin tears of 52.2% in at-risk patients admitted to the Medical Clinic ward of a University Hospital, which is higher when compared to other comparable studies. All injuries found were type III, according to the ISTAP system. Common associated factors included the presence of comorbidities and the use of various

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medications by patients at risk. Through the analysis of medical records data collection, a relevant finding was that the care provided for preventing and treating these injuries was inadequate, as indicated in the literature.

Another critical observation, though not initially targeted in the study, was the lack of prescriptions specifically intended to prevent trauma in fragile skin. These outcomes denote the urgent need to implement educational actions for health teams regarding this injury. Further research can raise awareness of this issue and aid in developing relevant documents and public policies.

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