ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL IN DERME

FERIDAS COMPLEXAS E A POPULAÇÃO MASCULINA NA ATENÇÃO PRIMÁRIA À SAÚDE

COMPLEX WOUNDS AND THE MALE POPULATION IN PRIMARY HEALTH CARE

HERIDAS COMPLEJAS Y POBLACIÓN MASCULINA EN LA ATENCIÓN PRIMARIA DE SALUD

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ABSTRACT
Introduction: Complex wounds represent a global health challenge, given several variables that hinder the healing process. **Objective**: To investigate the epidemiological and clinical profile of the male population with complex wounds treated at a UBS. **Methods**: This is a descriptive and retrospective research, using a quantitative approach, in the municipality of Macapá-AP. Data collection was carried out by surveying medical records of men undergoing treatment for complex wounds and individual registration forms on e-sus. Performing measurements of mean, median and standard deviation (SD) central tendency for quantitative variables and analysis of absolute and relative frequencies (%) for qualitative variables. **Results**: Sociodemographic and clinical characteristics of 72 men were analyzed, with a mean age of 53 years (SD= 1.56). There was a prevalence in the age group of 40 to 54 years (40.3%), reported being employed (73.6%). The majority of participants (54.2%) lived close to the UBS, and (58.3%) of the consultations took place in 2019, (51.4%) had preserved mobility, predominance (41.7%) with DM and (8.3%) history of amputation. In addition to (31.9%) smoking and (34.7%) alcoholism were recorded. Only 25% said they performed physical activity. **Conclusion**: The results highlight a complex panorama of the health conditions of men with complex wounds in Macapá. This information is crucial to guide effective prevention, treatment and care strategies, aiming to improve clinical results and quality of life for the population. However, new research and targeted interventions are needed to address the specificities of this population and reduce health disparities related to complex wounds.
Keywords: Men's Health; Epidemiology; Diabetic Foot; Varicose Ulcer.

RESUMEN
Introducción: Las heridas complejas representan un desafío de salud global, dadas varias variables que dificultan el proceso de curación. **Objetivo**: Investigar el perfil epidemiológico y clínico de la población masculina con heridas complejas atendidas en una UBS. **Métodos**: Se trata de una investigación descriptiva y retrospectiva, con enfoque cuantitativo, en el municipio de Macapá-AP. La recopilación de datos se llevó a cabo mediante la encuesta de registros médicos de hombres sometidos a tratamiento por heridas complejas y formularios de registro individuales en e-sus. Realización de mediciones de media, mediana y desviación estándar (DE) de tendencia central para variables cuantitativas y análisis de frecuencias absolutas y relativas (%) para variables cualitativas. **Resultados**: Se analizaron las características sociodemográficas y clínicas de 72 hombres, con una edad promedio de 53 años (DE= 1,56). Hubo prevalencia en el grupo etario de 40 a 54 años (40,3%), reportaron estar ocupados (73,6%). La mayoría de los participantes (54,2%) vivían cerca de la UBS, y (58,3%) de las consultas ocurrieron en 2019, (51,4%) tenían movilidad preservada, predominio (41,7%) con DM y (8,3%) antecedentes de amputación. . Además de (31,9%) se registró tabaquismo y (34,7%) alcoholismo. Sólo el 25% afirmó realizar actividad física. **Conclusión**: Los resultados resaltan un panorama complejo de las condiciones de salud de los hombres con heridas complejas en Macapá. Esta información es crucial para orientar estrategias efectivas de prevención, tratamiento y atención, con el objetivo de mejorar los resultados clínicos y la calidad de vida de la población. Sin embargo, se necesitan nuevas investigaciones e intervenciones específicas para abordar las especificidades de esta población y reducir las disparidades de salud relacionadas con las heridas complejas.
Palabras clave: Salud de los Hombres; Epidemiología; Pie Diabético; Úlcera Varicosa.

RESUMO
Introdução: As feridas complexas representam um desafio global para saúde, dadas diversas variáveis que dificultam o processo de cicatrização. **Objetivo**: Investigar o perfil epidemiológico e clínico da população masculina com feridas complexas atendida em uma UBS. **Métodos**: Trata-se de uma pesquisa descritiva e retrospectiva, utilizando abordagem quantitativa, no município de Macapá-AP. A coleta de dados foi pelo levantamento de prontuários de homens em seguimento para tratamento de feridas complexas e ficha de cadastro individual no e-sus. Realizando-se medidas de tendência central média, mediana e desvio-padrão (DP) para variáveis quantitativas e análise de frequências absolutas e relativas (%) para variáveis qualitativas. **Resultados**: Foram analisadas características sociodemográficas e clínicas de 72 homens, com média de idade de 53 anos (DP= 1,56). Houve prevalência na faixa etária de 40 a 54 anos (40,3%), relataram estar empregados (73,6%). A maioria dos participantes (54,2%) residia nas proximidades da UBS, e (58,3%) das consultas ocorreram em 2019, (51,4%) tinham mobilidade preservada, predominância (41,7%) com DM e (8,3%) histórico de amputação. Além de (31,9%) registros de tabagismo e (34,7%) alcoolismo. Apenas 25% afirmaram realizar atividade física. **Conclusão**: Os resultados destacam um panorama complexo das condições de saúde dos homens com feridas complexas em Macapá. Essas informações são cruciais para guiar estratégias de prevenção, tratamento e cuidado eficazes, visando melhorar resultados clínicos e qualidade de vida da população. Entretanto, são necessárias novas pesquisas e intervenções direcionadas para atender às especificidades dessa população reduzindo disparidades de saúde relacionadas a feridas complexas.
Palabras clave: Saúde do Homem; Epidemiologia; Pé Diabético; Úlcera Varicosa.

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INTRODUCTION

Complex wound is a relatively recent definition used to identify chronic and acute wounds that are difficult to respond to conventional treatments, and are different from other types of wounds due to the time it takes for the healing process to take months or years(1); this conflicts with the definition of chronic wound, which does not heal spontaneously within three months and generally has a common pattern of complexity [2].

In this context, to classify a wound as being in a complex condition, one or more of the following conditions must be present: extensive loss of the integument; infection; compromised viability of superficial tissues; association with systemic pathologies that impair the normal course of the healing process [2].

Based on this assumption, the definition of complex wound has instigated health professionals, especially nurses, due to the setback in the healing process and the social and economic repercussions [3], which highlights the magnitude of associated problems that require skills and competencies to meet this demand.

Considering the triggering factors that hinder healing, such as prolonged inflammation, impaired tissue repair and pre-existing diseases, these are related to social changes, especially regarding current lifestyle habits that significantly affect the quality of life of people with wounds [4].

Given the association with systemic pathologies that impair the normal course of the healing process, complex wounds may be associated with different causes, such as vascular pathologies, diabetes mellitus (DM), arterial hypertension (AH), neuropathies, prolonged immobilization, neoplastic diseases and nutritional changes. Therefore, treatment requires specialized care, based on continuous assessment of the patient [5,6]. However, despite the need for appropriate interventions for the treatment, promotion and prevention of wounds, changes in management are often not effectively implemented, prioritizing the treatment of symptoms [7,8].

The adult population affected by these wounds represents a considerable burden for health services, involving home care, prolonged hospitalizations, complex treatments and high rates of wound recurrence [4].

Research indicates a higher incidence of wounds in men [8] and indicates that men use primary health care (PHC) services less and resort more frequently to emergency and specialized services [9,10]. From this perspective, it is necessary to promote actions that contribute significantly to the understanding of the unique male reality in its various sociocultural, political and economic contexts, from a gender-related perspective, in order to implement lines of care that respect comprehensiveness and are able to introduce attention to men in Primary Health Care (PHC) [11], and that involve the different levels of development and organization of regional health systems and management variants.

Therefore, the complexity and magnitude of complex wounds are observed to

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affect the Unified Health System (SUS), especially in PHC, which corresponds to the first level of care and attention to people with this type of wound, as it is responsible for the set of individual, family and collective actions. In this sense, the question arose: How is the demographic and clinical scenario of men with complex wounds treated in PHC characterized?

This study is justified by the incipient percentage of scientific studies focused on the theme of complex wounds in men followed up in PHC services addressing the characteristics of this population, associated with the lack of a study in the capital Macapá in PHC services, which was sought but not identified. Therefore, understanding this scenario will make it possible to know the profile of men with complex wounds, indicators, direct actions and guide effective care management strategies, which highlights the relevance for the academic environment, PHC services and health professionals. Thus, this research aimed to investigate the epidemiological and clinical profile of the male population with complex wounds treated at a basic health unit in the city of Macapá-AP.

METHODS

Type of study

This is a descriptive, retrospective study with a quantitative approach.

Location and period of research

The study was carried out at the Basic Health Unit (UBS) of the Federal University of Amapá (UNIFAP), from January to May 2023. The population undergoing follow-up for the treatment of complex wounds is served through the project "Complex Wounds: Monitoring of people undergoing follow-up in a line of care", which carries out the segment of people with complex wounds until the lesion is in remission. Within the project, there is the Complex Wound Management Team (TIGESFC), formed by professors, nurses and academics, and provides quality and humanized care to this population.

Population and sample

The study population consisted of men with complex wounds who started follow-up by TIGESFC in the care line for complex wounds at UBS UNIFAP between 2019 and 2022. The non-probabilistic convenience sample consisted of 135 medical records, after applying the eligibility criteria, 63 were excluded, with the sample consisting of 72 medical records to compose the study.

Eligibility criteria

The inclusion criteria defined were: medical records of men with wounds classified as complex, over 18 years old, living in Macapá/AP, with complete data filling. The exclusion criteria were: medical records that did not have a record of the classification of complex wounds

Data collection and variables of interest

Data collection was performed by surveying the medical records of patients undergoing follow-up for treatment of complex

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wounds. The medical records included the care and follow-up form for complex wound care, which allowed the collection of sociodemographic and clinical variables. In addition, the individual registration form in e-sus was used to complement the collection of sociodemographic characteristics. The data collected were organized and tabulated using Microsoft Excel for Windows.

The sociodemographic variables collected were: age, sex, occupation, region of residence, year of care. The clinical variables were: mobility; comorbidities (DM, hypertension, cancer, neuropathy, peripheral vascular disease (PVD) and peripheral arterial disease (PAD), previous amputations); lifestyle habits (smoking, alcohol consumption and physical activity); clinical measurements such as random blood glucose, blood pressure values, ankle-brachial index (ABI); nutritional measurements such as weight, height and body mass index (BMI); characteristics and etiologies of ulcers (previous examination of the feet, location of the wound, classification of the ulcer and causes of the lesions) and prior treatment of the lesions.

Analysis and statistical processing of data

The statistical analysis and treatment of the data were performed using the IBM SPSS Statistics statistical program, version 29.0 for Windows. Descriptive statistics were performed for measures of central tendency (mean, median and standard deviation (SD)) to characterize the quantitative variables and analysis of absolute and relative frequencies (%) to characterize the qualitative variables.

Ethical care

Because this is a study involving human beings, the project followed Resolution No. 466/12 of the National Health Council (CNS), which regulates the standards for research involving human beings. After obtaining institutional authorization from the institution where the study was conducted, the project was registered on the Brasil platform and was approved by the research ethics committee of the Federal University of Amapá under opinion No. 4,280,682.

RESULTS

Of the 72 medical records that comprised the sample, the mean age was 53 (SD: 1.56) years, with a predominance of the age group from 40 to 54 years (40.3%). Most of the records showed (73.6%) that they were actively working, and (54.2%) that they lived in the same region as the health unit (south zone). Regarding the year of care, most consultations (58.3%) occurred in 2019 (Table 1).

Table 1 - Sociodemographic characteristics of men with complex wounds recorded in the medical records - Macapá, AP, Brazil, 2024 (n=72)

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Variables	Frequency n (%)		Average	Standard deviation	Interval
Age (years old)					
18 to 39 yo	11	(15,3 %)	*53,08*	*±1,56*	*24-80*
From 40 to 54 yo	29	(40,3 %)			
From 55 to 64 yo	17	(23,6 %)			
65 yo or more	15	(20,8 %)			
Ocupation					
Not active	19	(26,4 %)	-	-	-
Ative	53	(73,6 %)			
Housing region					
Central zone	10	(13,9 %)	-	-	-
South zone	39	(54,2 %)			
North zone	15	(20,8 %)			
West zone	4	(5,6%)			
Interior of the state	4	(5,6%)			
Year of service					
2019	42	(58,3 %)	-	-	-
2020	7	(9,7%)			

Source: authors' data (2024).

Regarding clinical characteristics (Table 2), (51.4%) of the medical records had records of preserved mobility, predominance (41.7%) with DM, and of the total number of individuals with complex wounds, (8.3%) had a history of previous amputation. Regarding lifestyle habits, (31.9%) had a record of tobacco use and (34.7%) of alcohol consumption. Only 25% of the participants reported performing some physical activity.

Table 2 – Clinical characteristics of men with complex wounds recorded in the medical records - Macapá, AP, Brazil, 2024. (n=72)

Clinical variables	Frequency n (%)

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Mobility		
Independent	37	(51,4%)
Parcially dependent	30	(41,7%)
Dependent	5	(6,9%)
Comorbities		
None	8	(11,1%)
DM*	30	(41,7%)
HAS**	8	(11,1%)
DM*/HAS**	22	(30,6%)
Cancer	1	(1,4%)
Nephropathy	2	(2,8%)
HAS**/DVP***/DM*	1	(1,4%)
Previous Amputation		
No	66	(91,7%)
Yes	6	(8,3%)
Life Habits		
Tobacco Use		
No	49	(68,1%)
Yes	23	(31,9%)
Alcoholic beverage ingestion		
No	47	(65,3%)
Yes	25	(34,7%)
Physical activity		
No		
Yes		

Source: authors' data (2024). *Diabetes Mellitus; **Hypertension; ***Peripheral Vascular Disease.

Regarding clinical measurements (Table 3), an average blood glucose level of 187.27 mg/dL (DV=90.78) was observed, with a notable differentiation in values, ranging from 66 mg/dL to 444 mg/dL. Of the study participants (63.9%) had blood glucose levels equal to or greater than 126 mg/dL. Regarding systolic blood pressure (sBP), the average was 133.01 mmHg (DV=22.01), highlighting that half of the records identified that men had values above 129 mmHg. On the other hand, the diastolic blood pressure (dBP) recorded an average of 82.08 mmHg, with most participants presenting values below 84 mmHg.

Data regarding the measurement of ABI were recorded for only (69.45%) of the men undergoing wound treatment, because the areas for measuring ABI were compromised by tissue in the others (30.55%), making it difficult to perform, since the ankle index is measured in the middle third of the lower limbs.

Therefore, (50%) presented values within the normal range (0.91 to 1.3), while (19.4%) had evidence of signs and symptoms of PAD when measuring ABI. Body weight and height measurements were recorded for 63 men, with averages (77.30 - SD = 17.4) kg and 1.69 - SD = 0.089), respectively. The body mass index (BMI) had an average of 26.96 kg/m2, with only

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23 records showing a BMI considered ideal (between 18.5 and 24.9 kg/m2).

Table 3 - Clinical measurements of men with complex wounds recorded in medical records - Macapá, AP, Brazil, 2024. (n=72).

Variable	Frequency n (%)		Average	Standard deviation	Interval
Blood glucose					
<100 mg/dL	5	(6,9%)	*187,28 mg/dl*	*±10,69 mg/dl*	*66-444 mg/dl*
100 - 125 mg/dL	21	(29,2%)			
≥126 mg/dL	46	(63,9)			
Systolic Blood Pressure					
<129 mmHg	36	(50,0%)			
130-139 mmHg	12	(16,7%)	*133,01 mmHg*	*±2,59 mmHg*	*100-230 mmHg*
140-159 mmHg	11	(15,3%)			
160-179 mmHg	11	(15,3%)			
>180 mmHg	2	(2,8%)			
Diastolic Blood Pressure					
<84 mmHg	46	(63,9%)			
85-89 mmHg	0	(0,0%)	*82,08 mmHg*	*±1,74 mmHg*	*50-130 mmHg*
90-99 mmHg	16	(22,2%)			
100-109 mmHg	3	(4,2%)			
>110 mmHg	7	(9,7%)			
Ankle-brachial index (n=50)					
Not rated	22	(30,6%)			
> 1,3	7	(9,7%)			
0,91-1,29	36	(50,0%)	*1,09*	*±0,36*	*0,38-1,8*
0,41-0,9	6	(8,3%)			
0-0,4	1	(1,4%)			
Peripheral Arterial Disease					
Not rated	22	(30,6%)			
No	36	(48,6%)	-	-	-
Yes	14	(19,4)			
Body weight (n=63)	-	-	*77,30 kg*	*±2,19 kg*	*51-134 kg*
Height (n=63)	-	-	*1,69 m*	*±0,01 m*	*1,47-1,89 m*
Body Mass Index (n=63)					
Not rated	9	(12,5%)			
18,5-24,9 (regular)	23	(31,9%)			
25-29,9 (Overweight)	24	(33,3%)	*26,96 kg/m²*	*±0,59 kg/m²*	*19,03-40,90 kg/m²*
30-34,9 (Obesity I)	13	(18,1%)			
35-39,9 (Obesity II)	2	(2,8%)			
>40 (Obesity III)	1	(1,4%)			

Source: authors' data

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The data in Table 4 show the characteristics of the ulcers, highlighting that the most frequent site of injury was the right lower limb (RLL) (54.2%). Regarding the classification of ulcers, the majority (49/68.1%) were diagnosed as Diabetic Foot Ulcer (DFU). In addition, most participants (97.2%) had not undergone previous foot examinations. Regarding the causes of the wounds, 51.4% of the men presented injuries caused by trauma.

Table 4 – Characteristics and etiologies of complex wounds recorded in the medical records, Macapá, AP, Brazil, 2024. (n=72)

Variable	Frequency n (%)	
Previous foot exams		
No	70	(97,2%)
Yes	2	(2,8%)
Injury sites		
Left lower limb	25	(34,7%)
Right lower limb	39	(54,2%)
Left lower limb + Right lower limb	5	(6,9%)
Others	3	(4,2%)
Ulcer classification		
Venous Ulcer	10	(13,9%)
Arterial Ulcer	0	(0,0%)
Diabetic Foot Ulcer	49	(68,1%)
Pressure Injury	2	(2,8%)
Others	10	(13,9%)
Etiology of ulcers		
Trauma	37	(51,4%)
Inappropriate shoe	4	(5,6%)
Bubbles	4	(5,6%)
Calluses	7	(9,7%)
Insect bite ulcer	2	(2,8%)
Erysipelas	4	(5,6%)
Not filled	14	(19,3%)

Source: authors' data

Regarding the treatments performed prior to care at the UBS, Table 5 shows that (25%) used topical antibiotics, including neomycin, fibrase, rifampicin, mupirocin, and silver sulfadiazine. Only (1.4%) had a record of prior use of splints. Regarding the use of medicinal plants (9.7%) used andiroba oil, copaiba oil, jucá gel, pracaxi oil, aloe vera, “pau travoso” and “amor crescido” tea, and in the last 15 days before the start of care (16.7%) recorded the use of antibiotic therapy such as ciprofloxacin hydrochloride and cephalexin.

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Table 5 – Prior treatments for ulcers, Macapá, AP, Brazil, 2024. (n=72).

Variable	Frequency n (%)	
Use of topical antibiotics	18	(25,0%)
Use of plates	1	(1,4%)
Use of medicinal plants	7	(9,7%)
Antibiotic therapy < 15 days	12	(16,7%)
Without any prior treatment	34	(47,2)

Source: authors' data.

DISCUSSION

Chronic wounds represent a challenge for the health system, and the impact of these conditions has not yet been fully explored or understood, and research aimed at the male population has yet to be considered [12]. In this sense, results such as those from this study are relevant, as they offer a new way of observing the sociodemographic, clinical, and treatment characteristics of men with complex wounds in Macapá, Amapá. Providing this information is essential to understanding the profile of patients and guiding effective management and care strategies.

The mean age of 53 years in this study is consistent with previous studies carried out in the states of Piauí and Amapá [13-14]. In addition, a study carried out in 2020 highlights that (55.1%) of the population with complex wounds were men over the age of 60, and there was a predominance of males among the patients treated and evaluated [15]. This predominance of the development of these injuries in men highlights the importance of developing specific prevention and intervention activities in PHC, in order to identify barriers that hinder their preventive access to health care.

The assessment of participants' mobility shows a significant amount of partial or total dependence. This information is crucial considering the potential impact of mobility restrictions on their daily activities, which can, in turn, delay the wound healing process [16]. This suggests the need for targeted interventions to promote autonomy and improve the quality of life of these patients.

Regarding comorbidities, the complexity of the clinical profiles of these patients and the importance of multidisciplinary approaches in the management of their health conditions, which are associated with the type of injury developed, are highlighted. In addition, the need to increase technical and scientific knowledge among nursing professionals is highlighted, aiming to provide more effective dressings and treatments, which should take into account the injury and associated Comorbidities [17].

In addition, amputations highlight the severity of complications associated with complex wounds, underlining the urgency of effective preventive and management strategies

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to prevent the progression of these conditions to more advanced stages [18]. Regarding the participants' lifestyle habits, a significant number of men reported tobacco use and alcohol consumption, the former being a risk factor for the development of PAD. Furthermore, the low rate of participants who reported engaging in regular physical activity highlights the importance of promoting a healthy lifestyle and self-care measures in order to stimulate the balance of glucose levels through physical activity, reducing the risk of developing DFU. Therefore, it is essential to consider all of these behaviors when planning the procedures, as they can influence or delay the healing process, directly impacting therapeutic results and associated costs [19].

Furthermore, regarding clinical manifestations, poor glycemic control was observed among the participants, suggesting a significant prevalence of hyperglycemia, which may play a crucial role in delaying healing and increasing the risk of complications associated with DFU. Regarding blood pressure, half of the participants presented values that indicate average blood pressure control, close to the threshold considered ideal, which can potentially contribute to the progression of cardiovascular diseases and compromise the wound healing process. Such characteristics emerge as an important issue, as they interfere with the lack of proper tissue control [20].

On the other hand, in relation to ABI, a possible gap in the assessment of the vascular status of these individuals is suggested, as a considerable proportion were diagnosed with PAD, which highlights the importance of a comprehensive vascular assessment and early intervention to prevent complications related to compromised blood circulation. It is known that a significant number of amputations result from the lack of early detection by variables such as ABI, which could allow for the early detection, prevention and/or treatment of underlying and future conditions [21]. In addition, the average BMI indicated a significant prevalence of overweight or obesity among the participants. This observation is particularly relevant since excess weight is associated with a higher risk of health complications, especially in people over 50 years of age, who often have multiple pathological conditions, including diabetes, hypertension and vascular diseases, all of which can negatively affect wound healing [22].

Regarding the characteristics of the ulcers, most were identified in the right lower limb, highlighting the importance of special attention to foot health in patients with risk conditions, such as diabetes. Ulcers in this area can lead to serious complications, including amputation. In addition, most ulcers were classified as UPD, a common and potentially serious complication of diabetes, which requires specific care and multidisciplinary treatment approaches that have been shown to contribute to improving the well-being of individuals with this type of wound, promoting greater adherence to treatment and, therefore, preventing additional

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complications and promoting adequate wound healing [13].

A prevalence study indicated that the most common chronic wounds are pressure ulcers, leg ulcers and diabetes-related wounds [23]. Regarding diabetes, these wounds may also be potential for complications, considering that simple wounds can worsen and become complex. In this regard, it can be inferred that in the etiology of the ulcers in this study, trauma was identified as the main cause, accounting for more than half of the cases. This variety of causes highlights the importance of a holistic approach to ulcer management, which includes not only treating the lesions themselves, but also identifying and correcting underlying risk factors.

Furthermore, it was observed that the participants almost completely failed to perform prior foot examinations, predisposing them to incipient screening and prevention of complex wounds. It is known that many of the complications associated with diabetic foot can be prevented through educational interventions aimed at controlling glucose levels, reducing alcohol consumption, stopping smoking, combating obesity and controlling high blood pressure, together with specific foot care and an understanding of risk factors. These measures, combined with regular foot inspection, have the potential to reduce the number of lower limb amputations in patients with DM by up to half [24].

Finally, regarding the prior treatment of ulcers, antibiotic therapy stands out as prevalent, but the use of medicinal plants, such as andiroba and aloe vera, was also observed, taking into account the Amazonian context and the topical effects of such plants. Furthermore, the topical use of other medicinal plants that have the effect of strengthening healing processes is now viable [25]. However, it is crucial to evaluate the efficacy and safety of these approaches, as well as their interaction with other conventional therapies. The use of splints was not very prevalent, as was treatment with systemic antibiotics in the last 15 days before care at the health unit. This suggests that sociocultural aspects may influence other forms of treatment, in addition to antibiotics, such as the use of plants, which may have healing effects, even if they are not widely adopted [26].

These data highlight the complexity and heterogeneity of clinical and socioeconomic conditions associated with complex wounds in men in the studied region. This information is essential to understand the particularities of this population and to support new studies aimed at developing personalized treatment and prevention approaches, aiming to improve clinical outcomes and quality of life for these patients. An important difficulty identified in this study is the scarcity of research focused specifically on the male profile in relation to complex wounds and associated conditions, which, despite being a limitation, also shows a strength of the study due to its innovation and originality, especially in the region of Macapá,

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Amapá, Brazil. This lack of specific studies may impact the comprehensive understanding of the needs and challenges faced by men with chronic or complex wounds, hindering the formulation of targeted interventions and health policies.

This lack of studies on the male profile in relation to complex wounds brings significant limitations. This is due to three main reasons: first, there is a gender bias in health research, with a historical tendency to focus more on conditions that predominantly affect women, resulting in knowledge gaps on specific conditions that affect men, such as diabetic foot ulcers. Second, men and women may experience health conditions differently due to biological, behavioral and social factors, meaning that studies that do not consider the male profile may not adequately capture the specificities related to men's health. Furthermore, the lack of specific research on the male profile in relation to complex wounds may hinder the implementation of effective interventions and the formulation of health policies targeted to meet the needs of men in this area.

To overcome this limitation and improve the understanding of the male profile in relation to complex wounds, more research is needed that addresses the following aspects: It is essential to include representative samples of men in prospective and retrospective studies, allowing a comprehensive analysis of the clinical, socioeconomic and behavioral characteristics of this specific group. Furthermore, it is crucial to investigate the most common risk factors and comorbidities among men with complex wounds to identify specific patterns and determinants of male health in this population. Thus, comparing the effectiveness of different treatment approaches and interventions in men compared to women may provide valuable insights into the distinct therapeutic needs of men with complex wounds. Finally, based on solid evidence, it is essential to develop and test tailored health interventions that address the specific challenges faced by men with chronic or complex wounds.

CONCLUSION

The study data on men with complex wounds reveal a sociodemographic profile characterized by men with an average age of 53 years, predominantly in the 40-54 age range, many of whom are employed and live in the southern area of the city. Clinically, a high prevalence of comorbidities such as DM and hypertension is observed, along with impaired mobility problems and a history of previous amputation. Elevated blood glucose, blood pressure and BMI values indicate chronic conditions such as obesity, with most ulcers located on the right lower limb, mainly related to diabetic foot ulcers (DFU) and traumatic events.

These findings are essential to guide effective care strategies, aiming to improve clinical outcomes and quality of life for these patients. Intervention strategies should address the identified comorbidities and risk factors specific to this population in an integrated manner. More research and targeted interventions are needed to mitigate health disparities related to complex wounds in

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Macapá, ensuring personalized and efficient care for men affected by these conditions.

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Nothing to declare

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Authorship criteria (author contributions)

Karoliny Miranda Barata: contributed substantially to the conception and planning of the study, as well as obtaining, analyzing, interpreting data, writing, critical review and final approval of the published version;

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