

PREVALENCE AND CHARACTERIZATION OF CHRONIC WOUNDS IN ELDERLY PERSONS ASSISTED IN PRIMARY CARE

PREVALÊNCIA E CARACTERIZAÇÃO DE FERIDAS CRÔNICAS EM IDOSOS ASSISTIDOS NA ATENÇÃO BÁSICA

PREVALENCIA Y CARACTERIZACIÓN DE FERIDAS CRÓNICAS EN ANCIANOS ASISTIDOS EN LA ATENCIÓN BÁSICA

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Objective: to analyze the prevalence and characterization of chronic wounds in the elderly assisted in primary care and to describe the sociodemographic and clinical characteristics of these elderly patients. **Method:** cross-sectional study with 339 elderly people, conducted between January and May 2016. **Results:** 55.8% were from 60 to 70 years old, 67.3% were women, with no schooling (44%), married (51.9%) and with one or more diseases (91.7%). The prevalence was 8% (95% CI, 5.0-10.9), with 5% pressure lesions and 2.9% vasculogenic ulcers. There was an association between the occurrence of chronic wounds with schooling ($p = 0.03$) and Mini-Mental State Examination (MMSE) score ($p = 0.000$) and statistical difference in mean age between the elderly with lesions and those with no lesion ($P = 0.000$). **Conclusion:** there was a low prevalence of chronic wounds in the studied population. The sacral region was the most affected and 48.2% of the lesions presented granulation tissue and had an average time of existence of three years.

Descriptors: Elderly. Wounds and injuries. Primary care.

Objetivo: analisar a prevalência e a caracterização de feridas crônicas em idosos assistidos na atenção básica e descrever as características sociodemográficas e clínicas desses idosos. Método: pesquisa transversal com 339 idosos, realizada entre janeiro e maio de 2016. Resultados: 55,8% tinham de 60 a 70 anos, 67,3% eram mulheres, sem escolaridade (44%), casadas (51,9%) e com uma ou mais doenças (91,7%). A prevalência foi de 8% (IC 95% 5,0-10,9), sendo 5% lesões por pressão e 2,9% úlceras vasculogênicas. Verificou-se associação da ocorrência de ferida crônica com escolaridade ($p=0,03$) e escore do Mini-Exame do Estado Mental ($p=0,000$) e diferença estatística na média da idade entre os idosos com lesões e os que não apresentavam lesão ($p=0,000$). Conclusão: houve baixa

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prevalência de feridas crônicas na população estudada. A região sacral foi a mais atingida e 48,2% das lesões apresentavam tecido de granulação e tinham média de tempo de existência de três anos.

Descritores: Idoso. Ferimentos e lesões. Atenção primária.

Objetivo: analizar prevalencia y caracterización de heridas crónicas en ancianos asistidos en la atención básica y describir sus características sociodemográficas y clínicas. Método: investigación trasversal, realizada entre enero y mayo de 2016 con 339 ancianos. Resultados: El 55,8% tenía entre 60 y 70 años, mujeres (67,3%), sin escolaridad (44%), casadas (51,9%), con una o más enfermedades (91,7%). La prevalencia fue del 8% (IC 95% 5,0-10,9), siendo 5% lesiones por presión y 2,9% úlceras vasculogénicas. Se verificó asociación de ocurrencia de herida crónica con escolaridad ($p=0,03$), puntuación del Mini-Examen del Estado Mental ($p=0,000$) y diferencia estadística en la media de edad entre los ancianos con lesiones y los que no presentaban lesión ($p=0,000$). Conclusión: hubo baja prevalencia de heridas crónicas en la población estudiada. La región sacral fue la más afectada y el 48,2% de las lesiones presentaban tejido de granulación y un promedio de tiempo de existencia de tres años.

Descriptores: Ancianos. Heridas y lesiones. Atención primaria.

Introduction

The growth of the elderly population is a natural, irreversible and worldwide phenomenon. It occurs in different rhythms and speeds in the various regions of the world, and the aspects that interfere in the expansion of the population with this age group are the changes in the conditions of life and the advances of medicine in the fight against diseases, which reduce the early mortalities, as well as promote longevity. In this sense, with the aging of the population, consequently there is an overall increase in chronic diseases, and a concomitant increase in the number of people with lesions secondary to the underlying pathology is also predicted⁽¹⁾.

Most chronic wounds are associated with conditions in the elderly population, including vascular disease, venous insufficiency, hypertension, and diabetes mellitus. There are still fundamental questions about the effect of aging on wound healing and mechanisms of injury repair, as well as tissue regeneration in the elderly⁽²⁾. Among the types of chronic wounds most frequently found in basic health care services are vasculogenic ulcers (VU) and lesions by pressure (LP), which are usually of long evolution and have a variable therapeutic response.

VU are relevant clinical diseases, affecting about 600,000 Americans annually, being more

prevalent in the elderly population, reaching a rate higher than 4% in people over 65 years of age. In addition, the overall incidence of VU is expected to increase significantly, in conjunction with the increase in the number of the elderly population, as it is directly associated with the chronic pathologies that arise with aging⁽³⁾.

The prevalence of LP in people aged 60 years or older is higher than in people with lower age, due to the presence of the main risk factors for the development of this lesion, including those considered intrinsic, such as age and presence of some chronic diseases prevalent in this portion of the population⁽⁴⁻⁵⁾. In a study conducted in Teresina, Piauí, Brazil, 30 patients were evaluated under house-hold care of the Family Health Strategy (FHS), aged between 18 and 108 years, with 80% of elderly people, indicating a prevalence of PU of 13.33%⁽⁵⁾.

Thus, it is necessary to know the problem in the assisted population to plan care actions. Therefore, the objective of this study was to analyze the prevalence and characterization of chronic wounds in elderly patients assisted in basic care and to describe the sociodemographic and clinical characteristics of these elderly patients.

Method

This is a quantitative and cross-sectional study carried out in the city of Teresina (PI), Brazil, with elderly people assisted by the FHS teams of the three Regional Health Departments (RHD) of the municipality, from January to May 2016.

The calculated sample was 339 persons, with the formula $n = z^2 \cdot p \cdot (1 - p) / e^2$, where: z is 1.96, p prevalence of chronic wounds in the elderly population of 17%⁽⁶⁾; and margin of error of 4%. For the selection of the sample, the proportional stratified sampling process was applied in three stages. In the first stage, proportional distribution was performed by the elderly population of each RHD, with 92 elderly participants from Center/North RHD, 109 from South and 138 from East/Southeast. In the second stage, the proportional distribution of the number of Basic Health Units (BHU) to be drawn by RHD was carried out: 6 in the Center/North, 9 in the South and 10 in the East/Southeast. In the third and final stage, the quantitative distribution of the elderly within the BHU, randomly selected through the R software (Project for Statistical Computing) version 3.0.2 to compose the sample, was proportionally distributed.

The elderly were randomly drawn and had to have a fixed residence in the area restricted to the FHS of the drawn BHU. As exclusion criteria, the elderly which were not found at home after three scheduled attempts for the interview, either because of travel or because they no longer resided at the address.

Data collection was done by the researchers, through interviews at home. The Mini-Mental State Examination (MMSE), the Sociodemographic, Economic and Clinical Data Instrument, the Katz Scale and the Push Scale were used as instruments. Thus, data collection consisted of three stages:

Stage 1 - Cognitive evaluation: the MMSE was applied to assess the cognitive condition and respond to the interview. In this study, the adapted version was used in Brazil⁽⁷⁾, whose cut-off points were 13 for illiterate, 18 for low and medium schooling and 26 for high schooling. If

the elderly presented a score below these values, the interview was performed with the caregiver or responsible family member.

Stage 2 - Socio-demographic, economic and clinical data: the instrument was developed to collect sociodemographic, economic and clinical information related to the presence and types of chronic pathologies, medication use, life habits and functional independence for the Basic Daily Life Activities (BDLAs), classified according to the Katz Scale, adapted version⁽⁸⁾, in indexes from 0 to 6.

Stage 3 - Wound evaluation: if the patient presented an LP or VU wound with more than three months of evolution, the last part of the instrument was applied to evaluate the lesion. In case of LP, the total of up to 4 (four) lesions per participant was considered, because the elderly could present multiple scratches in different body regions. In this situation, the oldest lesions were evaluated, being used to identify the injury the nomenclature wound 1 (W1), wound 2 (W2) and so on. In the stage classification, LPs were classified according to the international consensus of the National Pressure Ulcer Advisory Panel⁽⁹⁾ as categories I, II, III and IV, unclassifiable lesions and deep tissue injury. VU was classified according to the criterion of tissue loss⁽¹⁰⁾, partial loss of tissue or partial thickness and total loss of tissue or total thickness. In wound characterization, the Pressure Ulcer Scale for Healing (PUSH) was adapted and validated for the Portuguese language⁽¹¹⁾.

Initially, the organization of the data was performed through the manual review of the questionnaires. The data was entered in the Microsoft Excel 2013 program and then imported into the Statistical Package for the Social Sciences (SPSS) for Windows program (version 19.0). Subsequently, descriptive analyzes, distribution, frequency and inferential statistics were performed.

For all analyzes, the level of significance was set at 0.05. To verify association, some variables were recoded to make feasible the application of the tests. Pearson's chi-square test and Fischer's exact test were performed. The strength of the

associations was calculated using the Odds Ratio (OR) with a 95% confidence interval. For comparison of means, first, the Kolmogorov-Smirnov normal adherence test was applied and then the Student's T test for the age variable. The discussion was made in light of the knowledge produced and published on the subject.

Regarding the ethical aspects, the study meets the fundamentals contained in Resolution No. 466/2012, with the obtaining of favorable opinion No. 1,144,315 from the Research Ethics Committee of the Universidade Federal do Piauí.

Results

A total of 339 elderly people were distributed in the three RHDs: East/Southeast (40.7%), South (32.2%) and North (27.1%). Table 1 shows that the mean age was 71.1 years (\pm 8.9), 55.8% in the age group of 60 to 70 years, with a predominance of the female sex (67.3%), without schooling (44%), with a companion (51.9%) and living with spouse, children and/or grandchildren (71.7%). It was also verified that 85% received between one and three minimum wages, being 72.3% retired and 20% developing some paid activity.

Table 1 – Sociodemographic and economic characterization of the elderly interviewed. Teresina, Piauí, Brazil – 2016. (n=339) (to be continued)

| Variables | n | % | Average | Standard deviation | Confidence Intervals 95% | Minimal and Maximum |
|--|-----|------|---------|--------------------|--------------------------|---------------------|
| Age (years) | | | 71.1 | 8.9 | 70.1-72.0 | 60-106 |
| 60 - 70 | 189 | 55.8 | | | | |
| 71 - 80 | 95 | 28.0 | | | | |
| 81 and over | 55 | 16.2 | | | | |
| Genre | | | | | | |
| Male | 111 | 32.7 | | | | |
| Female | 228 | 67.3 | | | | |
| Education | | | 2.64 | 3.0 | 2.3-2.9 | 0-15 |
| Without | 149 | 44.0 | | | | |
| Low (1-3 years) | 61 | 18.0 | | | | |
| Medium (4-7 years) | 91 | 26.8 | | | | |
| High (8 years and over) | 38 | 11.2 | | | | |
| Marital status | | | | | | |
| Single/Divorced | 72 | 21.2 | | | | |
| Married/Stable Marriage | 176 | 51.9 | | | | |
| Widower | 91 | 26.9 | | | | |
| Who does the elderly live with | | | | | | |
| Alone | 25 | 7.4 | | | | |
| With spouse/partner, children and/or grandchildren | 243 | 71.7 | | | | |
| With relatives/friends | 71 | 20.9 | | | | |
| Family Income (*) | | | | | | |
| < 1 | 05 | 1.5 | | | | |
| 1 - 3 | 288 | 85.0 | | | | |
| > 3 | 46 | 13.5 | | | | |

Table 1 – Sociodemographic and economic characterization of the elderly interviewed. Teresina, Piauí, Brazil – 2016. (n=339) (conclusion)

| Variables | n | % | Average | Standard deviation | Confidence Intervals 95% | Minimal and Maximum |
|-------------------------------|-----|------|---------|--------------------|--------------------------|---------------------|
| Retirement | | | | | | |
| Yes | 245 | 72.3 | | | | |
| No | 94 | 27.7 | | | | |
| Develops some activity | | | | | | |
| None | 89 | 26.3 | | | | |
| Domestic activity | 179 | 52.8 | | | | |
| Paid Work | 68 | 20.0 | | | | |
| Volunteer Work | 03 | 0.9 | | | | |

Source: Created by authors.

(*) MW = Minimum Wage (R\$ 880.00)

According to Table 2, the majority (91.7%) had one or more diseases, the most prevalent being hypertension (70.1%), hypercholesterolemia (31.5%), diabetes mellitus (29.9%), cardiovascular disease (13.8%) and peripheral vascular disease (10.3%). As for medication, 87.3% used one or more, on average 2.8 medications (± 1.6), among which the most cited were antihypertensive drugs (73.2%), hypoglycemic agents (30, 5%), cardiovascular (16.6%) and psychotropic (10.5%). In the MMSE evaluation, it was found that the majority of the elderly presented a score

mean above the cut-off points for without, low and medium schooling, except high schooling which presented an average of 24.7% (± 5.1). The majority (83.5%) were independent for all functions, 81.7% had locomotion preserved, 98.8% made oral alimentation and 59% without food restrictions, with an average of 4.4 meals per day (± 0.9) and 36.9% with reports of weight loss. Most reported no smoking and no drinking, respectively, 43.4% and 67.6%. However, only 23.9% did physical activity (Table 2).

Table 2 – Characterization of the elderly interviewed according to clinical variables and life habits. Teresina, Piauí, Brazil – 2016. (n=339) (to be continued)

| Variables | n | % | Average | Standard deviation | Confidence Intervals 95% | Minimal and Maximum |
|---|-----|------|---------|--------------------|--------------------------|---------------------|
| Presence of diseases | | | | | | |
| One or more | 311 | 91.7 | | | | |
| No disease | 28 | 8.3 | | | | |
| Use of medication | | | | | | |
| Yes | 296 | 87.3 | 2.8 | 1.6 | 2.6-3.0 | 1-9 |
| No | 43 | 12.7 | | | | |
| Mini-Mental State Examination | | | | | | |
| No schooling | | | 15.8 | 6.6 | 14.7-16.9 | 0-26 |
| Low education level | | | 21.3 | 3.8 | 20.3-22.2 | 3-27 |
| Medium schooling | | | 22.2 | 6.0 | 20.9-23.4 | 0-30 |
| High schooling | | | 24.7 | 5.1 | 23.0-26.4 | 4-30 |
| KATZ | | | | | | |
| Independent in all six functions | 283 | 83.5 | | | | |
| Independent in five roles and dependent on one function | 13 | 3.8 | | | | |

Table 2 – Characterization of the elderly interviewed according to clinical variables and life habits. Teresina, Piauí, Brazil – 2016. (n=339) (conclusion)

| Variables | n | % | Average | Standard deviation | Confidence Intervals 95% | Minimal and Maximum |
|---|-----|------|---------|--------------------|--------------------------|---------------------|
| Independent in four functions and dependent on two functions | 06 | 1.8 | | | | |
| Independent in three functions and dependent on three functions | 06 | 1.8 | | | | |
| Independent in two functions and dependent on four functions | 06 | 1.8 | | | | |
| Independent in one function and dependent on five functions | 09 | 2.6 | | | | |
| Dependent on all functions | 16 | 4.7 | | | | |
| Activity / locomotion | | | | | | |
| Preserved / wandering | 277 | 81.7 | | | | |
| Wander with help | 38 | 11.2 | | | | |
| Do not wander/wheelchair | 05 | 1.5 | | | | |
| Do not wander/bedridden | 19 | 5.6 | | | | |
| Nutrition | | | | | | |
| Oral | 335 | 98.8 | | | | |
| Nasoenteral tube / Nasogastric tube / Gastrostomy | 04 | 1.2 | | | | |
| Food ingestion | | | | | | |
| Without restriction | 200 | 59.0 | | | | |
| Food restriction | 126 | 37.2 | | | | |
| Difficulty in eating | 13 | 3.8 | | | | |
| Number of meals (day) | | | 4.4 | 0.9 | 4.3-4.5 | 1-6 |
| Report of Weight variation | | | | | | |
| No | 121 | 35.7 | | | | |
| Gain | 93 | 27.4 | | | | |
| Loss | 125 | 36.9 | | | | |
| Smokes | | | | | | |
| No | 147 | 43.4 | | | | |
| Yes | 33 | 9.7 | | | | |
| Smoked in the past | 159 | 46.9 | | | | |
| Alcoholic | | | | | | |
| No | 229 | 67.6 | | | | |
| Yes | 32 | 9.4 | | | | |
| Drank in the past | 78 | 23.0 | | | | |
| Physical activity | | | | | | |
| No | 258 | 76.1 | | | | |
| Yes | 81 | 23.9 | | | | |

Source: Created by authors.

As for care and social support, 59 (17.4%) elderly had caregivers, 89.8% of them were family members, mainly children (67.9%), followed by the spouse (18.9%). The majority (83.8%) depended exclusively on Brazilian National Health System (SUS).

Table 3 shows that 27 interviewees had a chronic wound, bringing an estimated overall prevalence of 8% (IC95%5,0-10,9), and LP was 5% (IC95%2,9-7,7) and VU 2.9% (IC95%1,2-4,7).

Table 3 – Prevalence of chronic wounds by type. Teresina, Piauí, Brazil – 2016. (n=339)

| Variables | n | % | Confidence Intervals 95% |
|---|-----|------|-----------------------------|
| General Prevalence of Chronic Wounds | | | |
| No | 312 | 92.0 | 89.1-95.0 |
| Yes | 27 | 8.0 | 5.0-10.9 |
| Prevalence of lesion by pressure | | | |
| No | 322 | 95.0 | 92.3-97.1 |
| Yes | 17 | 5.0 | 2.9-7.7 |
| Prevalence of vasculogenic ulcer | | | |
| No | 329 | 97.1 | 95.3-98.8 |
| Yes | 10 | 2.9 | 1.2-4.7 |

Source: Created by the authors.

It is observed that 70.4% of the elderly had more than one lesion, with an average of 2.7 wounds per patient (± 1.4), totaling 40 lesions. The most frequent spots were the sacral regions (32.5%) and the distal third of the leg (15%). As for dimensions, 44% had an area larger than 24.0cm² and 29.7% had a 1.1 to 8.0cm² area, 11.1% had a large amount of exudate, 14.8% had a festered type of tissue, with an average time of 30.6 months (± 41.1). Regarding the Push

score, 51.8% were above 9. Of the 40 lesions evaluated, the majority (42.9%) of the LP was stage 3, followed by stage 4 (32.1%), And not classifiable (14.3%); And VU were all of partial thickness.

There were significant statistical association with the occurrence of chronic wound, the schooling (p = 0.03) and MMSE (p = 0.000) variables (Table 4).

Table 4 – Association of the occurrence of chronic wounds with sociodemographic and clinical variables. Teresina, Piauí, Brazil – 2016. (n=339) (to be continued)

| Variables | Presence of Chronic Wound | | | | Total | | p-value | Odds Ratio | Confidence Intervals 95% |
|----------------------------|---------------------------|------|----------|------|-------|------|--------------|--------------|-----------------------------|
| | No n | % | Yes n | % | n | % | | | |
| Genre | | | | | | | 0.525* | 1.429 | 0.585-3.487 |
| Male | 104 | 30.7 | 7 | 2.1 | 111 | 32.7 | | | |
| Female | 208 | 61.4 | 20 | 5.9 | 228 | 67.3 | | | |
| Education | | | | | | | 0.03* | 0.289 | 0.120-0.696 |
| Without | 125 | 44.3 | 24 | 8.5 | 149 | 52.8 | | | |
| With | 126 | 44.7 | 7 | 2.5 | 133 | 47.2 | | | |
| Income | | | | | | | 0.80** | 0.777 | 0.261-2.309 |
| Up to 3 MW | 261 | 77 | 32 | 9.4 | 293 | 86.4 | | | |
| > 3 MW | 42 | 12.4 | 4 | 1.2 | 46 | 13.6 | | | |
| Takes medicine | | | | | | | 0.09** | 1.182 | 0.396-3.524 |
| No | 39 | 11.5 | 4 | 1.2 | 43 | 12.7 | | | |
| Yes | 264 | 77.9 | 32 | 9.4 | 296 | 87.3 | | | |
| Presence of disease | | | | | | | 0.336** | 3.424 | 0.451-25.983 |
| Yes | 27 | 8.0 | 1 | 0.3 | 28 | 8.3 | | | |
| No | 276 | 81.4 | 35 | 10.3 | 311 | 91.7 | | | |

Table 4 – Association of the occurrence of chronic wounds with sociodemographic and clinical variables. Teresina, Piauí, Brazil – 2016. (n=339) (conclusion)

| Variables | Presence of Chronic Wound | | | | Total | | p-value | Odds Ratio | Confidence Intervals 95% |
|--------------------------------------|---------------------------|------|-------|-----|-------|------|---------------|--------------|--------------------------|
| | No n | % | Yes n | % | n | % | | | |
| Mini-Mental State Examination | | | | | | | 0.000* | 7.189 | 3.436-15.043 |
| Cognitive preserved | 266 | 78.5 | 18 | 5.3 | 284 | 83.8 | | | |
| Cognitive deficit | 37 | 10.9 | 18 | 5.3 | 55 | 16.2 | | | |

Source: Created by the authors.

* Pearson's chi-square; **Exact Fischer test.

MW = Minimum wage (R\$ 880.00).

According to Table 5, there was a statistically significant difference in the age of the elderly when compared those who had wound to those who did not ($p = 0.000$).

Table 5 – Comparison of the mean age of the interviewed elderly. Teresina, Piauí, Brazil – 2016. (n=339)

| Chronic wounds | n | Age average | Standard deviation | p-value |
|----------------|-----|-------------|--------------------|---------|
| No | 303 | 70.69 | 8.471 | 0.000* |
| Yes | 36 | 74.33 | 12.066 | |

Source: Created by the authors.

* Student t test.

Discussion

The main concentration of the elderly in the study was found in the age group of 60 to 70 years. This evidences a recent Brazilian aging process, which is different from what has been occurring in developed countries, whose concentration is higher in the group of 80 years or more. The estimates of the last census indicate that the group aged 80 or over will be the one that will grow the most in the coming years, as it represented 1.53% of the general population in 2010 and expectations are expected to represent 8.75% Of the population in 2060⁽¹²⁾.

The mean age of 71.1 years confirms that the life expectancy of the Brazilian population has increased⁽¹³⁾. Considering that the elderly are the most affected with chronic wounds, it can be said that this factor becomes relevant, since there was a difference in the mean age of the elderly,

when comparing those who had some injury with those who did not have any. In addition, people who live longer will be more likely to be exposed to risk factors.

The predominance of the female sex among the elderly reflects the phenomenon called "feminization of old age", which occurs due to the higher life expectancy among women. The female contingent over 60 years old rose from 2.2% in 1940 to 4.7% in 2000 and 6% in 2010⁽¹²⁾.

Regarding gender, the percentage difference between female and male of individuals affected by wounds has been decreasing over the years, although women are still the ones with the highest number due to factors such as pregnancy and hormones⁽¹³⁻¹⁴⁾. For a long time, the majority of studies reported a higher occurrence of ulcers among females⁽¹⁴⁻¹⁵⁾. However, some studies show a higher occurrence in male patients⁽¹⁶⁻¹⁷⁾.

In the present study no association of sex with the occurrence of chronic wound was observed.

The highest illiteracy rate among the elderly is considered a reflection of the Brazilian educational policies of the past. In the 1930s to 1950s, enrollment in school institutions was restricted to specific social segments. In this sense, the low average schooling of this population is due to this unequal access⁽¹⁸⁾. Thus, we found an association of schooling with the occurrence of a chronic wound, which shows a tendency to increase the prevalence of these lesions in the elderly with low educational level. For this reason, it is essential to consider the evaluation of educational level as an important factor to promote health care actions. Therefore, professionals should be alert to the use of simple and accessible language as a facilitator of communication, in order to pass on health information to people with wounds.

Part of the elderly in the research had low family income and did some type of activity or work. In most cases, the elderly returned or continued in the job market to help supplement family income, because in many situations the retirement benefit was not enough to cover personal expenses. It is also a way for the elderly to feel useful, to occupy and to recognize themselves as being productive in a capitalist society⁽¹⁹⁾. This fact indicates that income is reduced among the elderly, even though socioeconomic factors are important in daily life and in the quality of life of this population group⁽¹⁴⁾. The income did not present a statistical association with the occurrence of chronic wound in this study, but it is also a concern in the context of chronic wounds, since the absence of financial resources to maintain the treatment can lead to the abandonment of therapy by the patient.

Having one or more chronic diseases characterized the study sample, including hypertension and diabetes, but did not present a statistical association with the occurrence of chronic lesions. However, when the MMSE was added with the occurrence of chronic wound in the study population, a statistically significant

association was found. This fact is important, given that chronic disease causes changes, especially in routine and activity planning, which increases not only the responsibilities but also the abilities in wound care⁽²⁰⁾, which is worrying when it comes to an elderly person with disabling diseases that compromise the cognitive state.

Most of them used one or more medications, and antihypertensive drugs prevailed. This reality was also evidenced in an epidemiological study of patients with chronic wounds treated at the outpatient clinic of a university hospital in the southeastern region of Brazil, where most referred some type of underlying disease, mainly diabetes or hypertension, diseases that are the cause of the onset wound or healing delay⁽¹³⁾.

Still in this context, the continued use of drugs should also be evaluated. Antihypertensives, for example, also predispose to the development of LP and VU because they reduce the blood perfusion in the tissue, favoring the increase of the patient's sensitivity to the pressure exerted. Thus, nurses should direct care, considering the clinical aspects of the patient, the signs and symptoms of the associated pathology and aspects of the wound⁽¹³⁾.

The results showed that the interviewees were not smokers or alcoholics. Smoking and alcohol can also be considered as risk factors, since the former produces effects on the body that interfere with blood flow, causing vasoconstriction, favoring a decrease in the supply of oxygen and nutrients to the cells, and the latter can lead to cell damage Neuronal, cardiac system, liver and pancreatic cells⁽²¹⁾.

Most of the participants did not practice physical activity. Since a sedentary lifestyle is strongly associated with the development of chronic diseases, the practice of physical activities is indicated as an important strategy to prevent these diseases. In addition, physical activity can prevent the recurrence of chronic wounds, such as venous ulcers⁽²²⁾.

In the study, it was found that a small part of the elderly had a caregiver, since most of them were independent to carry out the activities of daily living and had no problems of mobility.

Those who had, were, in most cases, a relative. In addition, most of the interviewees did not live alone but with spouses, children and/or grandchildren. The family is a source of informal support for the elderly, which occurs in situations of co-residence or not, when the members of a family help themselves in the search for collective well-being⁽⁶⁾.

The prevalence of chronic wounds in the study was 8% (IC95%5.0-10.9). Increased prevalence of chronic wounds can be expected considering demographic changes and the aging of population. In addition to the prevalence of chronic conditions that lead to a decline in functional capacity, the aging physiology itself causes a decrease in the efficiency of the respiratory, circulatory, sensory and nutritional systems, which leads to impaired blood flow, deficient oxygenation, nutrition and hydration of tissues and, consequently, contributes to increase this risk^(16,23).

However, epidemiological indices vary considerably, depending on the diagnosis, year and country. Internationally, there are wide variations in prevalence data and incidence of chronic wounds. In the study, the most prevalent wound was LP, with 5% (IC95%2.9-7.7), followed by VU with 2.9% (IC95%1.2-4.7), data that diverge from another study carried out in 2010 with elderly people enrolled in the FHS of a municipality in the interior of Goiás, where the highest prevalence was wounds of vasculogenic etiology, known as leg ulcers, which are one of the most frequent pathologies in the outpatient clinics of the hospitals and in offices⁽¹⁵⁾.

In a study carried out in 2012 in Germany, leg ulcers were the most frequent injuries, accounting for 64% of all wounds identified, followed by pressure injuries (41%) and diabetic ulcers (17%)⁽²⁴⁾. In Brazil, 51% of the patients had ulcers of venous etiology, 24% of diabetic etiology, 13% of other etiologies (surgical lesions), 6% with pressure lesions, 3% with ulcer of neuropathic etiology, 2% with ulcer of arterial etiology and 1% without classification information⁽¹³⁾.

The numerous skin lesions that affect the elderly are pointed out with distinct incidences,

relating the environment as a factor to impaired tissue integrity⁽¹⁵⁾. At the national level, few studies have investigated the chronic wounds at home. In Ribeirão Preto, in the interior of the state of São Paulo, Brazil, an investigation was carried out on sociodemographic, clinical characteristics and risk for the development of LP, the prevalence found was 17% in those aged 60 years or over⁽⁶⁾. Internationally, a study found a prevalence of LP in people over 65 years old of 0.44% (IC 95%:0,41-0,47%)⁽²⁵⁾.

In Teresina, Piauí, Brazil, the FHS faces difficulties, due to the large number of patients added to the structure of Teresina families, outside the planning of the teams, which cannot continue the programmatic actions of health promotion and disease prevention, diverting the focus to healing actions. Faced with these difficulties, it is sought to attend people who are in an aggravated state of health and are admitted to the team, often in a situation of prolonged immobility and with LP, which generates unrealistic health indicators, since they are patients coming from other municipalities, a fact that increases the number of LPs in the FHS teams⁽⁵⁾.

Associated with this, there is a linear relationship between the increase of the patients' age and the occurrence of LP, due to the prevalence of chronic conditions, which lead to a decrease in functional capacity in the elderly and immobility⁽⁶⁾.

As to the location of the lesions, the majority of the elderly had more than one and in different anatomical locations. The most affected region was sacral, which is associated with the most prevalent type of lesion, associated with the position in which the patient is usually bedridden or wheelchair-bound. This result corroborates the findings of other studies^(5,23).

As for the tissues found in the wounds, the granulation was present in 48.2% of the cases. The characteristic of the tissue in the wound bed is important indicator of the stage of healing achieved or complications that may be present. The granulation tissue in the bed is

a positive point, favoring the tissue repair and, consequently, the lesion closure⁽¹³⁾.

The average time of the existence of the chronic wounds was about three years, predicted prolonged time, because they were chronic lesions, healing occurred in a longer time than usual, besides the possibility of recurrence of these ulcers.

Often, delayed healing of a wound may be associated with pre-existing conditions, such as hypertension, diabetes, inadequate nutritional status, immunodeficiency, or infection. It is also added that the long time elapsed between the appearance of a wound and its healing is influenced by the therapy adopted for the treatment⁽¹⁴⁾. This situation can be evidenced by the Push scores presented in most cases, indicative of poor healing conditions.

In view of the above, the role of nurses in basic care is highlighted, in which they perform important work in treating wounds, since it is responsible for monitoring the evolution of the lesion, guiding and performing the dressing in an efficient and humanized way⁽²⁶⁾. In addition, its role in the responsibility of maintaining the intensive observation regarding the factors that determine the appearance and evolution of the wound, especially when dealing with the elderly person, is highlighted.

Conclusion

The results of this study showed that the elderly are progressively more vulnerable to the development of chronic wounds, since a difference in mean age was observed when elderly individuals with LP and VU were compared with elderly individuals who did not have these lesions, what can be explained by the presence of multiple morbidities, chronic clinical conditions that increase the risk for the occurrence of chronic wounds. Such conditions, associated with sociodemographic and clinical characteristics, such as low level of schooling and cognitive impairment, favor both the appearance of these wounds and can interfere in the healing process of the lesion.

It is important to survey the prevalence of these diseases in the elderly population, as well as the knowledge of the profile of these elderly people, to plan the care to be provided in primary care. Thus, the present research will contribute to improve the performance of primary health care professionals, especially the nurse, who deals with the provision of care for the elderly and has the responsibility to seek updates and apply in practice preventive and protective measures aimed at the occurrence of chronic wounds.

Collaborations:

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