

PATIENTS WITH CHRONIC LOWER-LIMB LESIONS, SEEN IN A PRIVATE HOSPITAL: A PREVALENCE STUDY**PACIENTES COM LESÕES CRÔNICAS EM MEMBROS INFERIORES, ATENDIDOS EM HOSPITAL PARTICULAR: ESTUDO DE PREVALÊNCIA****PACIENTES CON LESIONES CRÓNICAS EN EXTREMIDADES INFERIORES, ATENDIDOS EN UN HOSPITAL PRIVADO: UN ESTUDIO DE PREVALENCIA**

Miguir Terezinha Vieccelli Donoso¹, Ana Rita Miranda Caldas Fadel², Giovana Paula Rezende Simino³, Selme Silqueira de Mattos⁴, Mendelssohn Martins Santana da Silva⁵, Braulio Roberto Gonçalves Marinho Couto⁶

How to cite this article: Donoso MTV, Fadel ARMC, Simino GPR, Mattos SS, Silova MMS, Couto BRGM. Patients with chronic lower-limb lesions, seen in a private hospital: a prevalence study. Rev Enferm Atenção Saúde [Internet]. 2022 [acesso em: ____]; 11(2):e202245. DOI: <https://doi.org/10.18554/reas.v11i2.5388>

ABSTRACT

Objective: To evaluate the population affected by injuries, seen in a service for the care of chronic wounds in an outpatient clinic of a private hospital. **Method:** Descriptive, cross-sectional, and analytical study. The sample consisted of 320 patients with injuries. Data were collected through the electronic medical records. Calculation of the prevalence rate of lower limb injuries and of absolute and relative frequencies were used to describe the variables collected and mean and standard deviation. **Results:** The majority was female, white, married, retired, with a mean age of 68.2 years, overweight and with a single lesion. Most had venous ulcers, followed by diabetic foot ulcer and arterial ulcer. The remainder totaled 33.4%. The prevalence of lower limb injuries was 66%. **Conclusion:** The prevalence of injuries in the lower limbs was high, and in the studied population there were no healthy patients since all had some type of chronic ulcer.

Descriptors: Wound; Lower extremity; Varicose ulcer; Diabetic foot; Nursing.

¹ RN at the Federal University of Santa Catarina. Master in Nursing from the School of Nursing at UFMG. PhD in Health Sciences from the Faculty of Medicine of UFMG. Belo Horizonte - MG. Professor at the UFMG School of Nursing. <http://orcid.org/0000-0002-5497-9520>.

² Stomach therapist at the School of Nursing at the Federal University of Minas Gerais. RN at Hospital Luxemburgo - Belo Horizonte MG. <http://orcid.org/0000-0001-6094-6672>.

³ Doctorate in Medicines and Pharmaceutical Assistance from the Federal University of Minas Gerais. RN. Graduated from the University of São Paulo at Ribeirão Preto College of Nursing. Professor at the UFMG School of Nursing. Belo Horizonte - MG. <http://orcid.org/0000-0002-9814-3004>.

⁴ PhD in Nursing from the School of Nursing at UFMG. Professor at the UFMG School of Nursing (retired). Belo Horizonte-MG. <http://orcid.org/0000-0002-5102-5051>.

⁵ RN at the Wound Healing Center at Hospital Felício Rocho. Belo Horizonte-MG. <http://orcid.org/0000-0002-3281-7272>.

⁶ Professor at the University Center of Belo Horizonte – UniBH. Belo Horizonte, MG. <https://orcid.org/0000-0002-5314-5161>.

RESUMO

Objetivo: Avaliar a população acometida de lesões, atendida em serviço de atenção a feridas crônicas em ambulatório de hospital particular. **Método:** Estudo descritivo, transversal e analítico. A amostra foi de 320 pacientes com lesões, atendidas neste serviço. Os dados foram coletados via prontuários eletrônicos. Foi calculado taxa de prevalência de lesões de membros inferiores, frequências absoluta e relativa para a descrição das variáveis coletadas, média e desvio padrão. **Resultados:** A maioria era do sexo feminino, de cor branca, casada, aposentada, com idade média de 68,2 anos, com sobrepeso e portando lesão única. A maior parte tinha úlcera venosa, seguida de lesão em pé diabético e lesão arterial. O restante (lesões em outros locais) somou 33,4%. A prevalência de lesões em membros inferiores foi de 66%. **Conclusão:** A prevalência de lesão em membros inferiores foi alta, porém na população estudada não havia pacientes hígidos, uma vez que todos apresentavam alguma lesão.

Descritores: Ferida; Extremidades inferiores; Úlcera venosa; Pé diabético; Enfermagem.

RESUMEN

Objetivo: Evaluar la población afectada por lesiones, tratada en servicio de atención crónica de heridas en un hospital privado. **Método:** Estudio descriptivo, transversal y analítico. La muestra consistió en 320 pacientes con lesiones. Los datos se obtuvieron de registros médicos electrónicos. Fue utilizado cálculo de tasa de prevalencia de lesiones de extremidades inferiores y frecuencias absolutas y relativas para la descripción de las variables recogidas y la media y la desviación estándar. **Resultados:** La mayoría era mujer, blanca, casada, jubilada, con edad media de 68,2 años, con sobrepeso y portando una sola lesión. La mayoría tenía úlcera venosa, seguida de lesiones de pie diabético y lesiones arteriales. El resto totalizó 33,4%. La prevalencia de lesiones en las extremidades inferiores fue del 66%. **Conclusión:** La prevalencia de lesiones en las extremidades inferiores fue alta, y en la población estudiada no había pacientes sanos, ya que todos tenían algún tipo de lesión.

Descriptor: Herida; Extremidades inferiores; Úlcera varicosa; Pie Diabético; Enfermería.

INTRODUCTION

Lower limb ulcers (LL) constitute a serious social and collective health problem worldwide. They affect the person arising spontaneously or accidentally, usually evolving into a chronic lesion, being accompanied by other preventable injuries.¹ Lower limb ulcers are lesions reported since ancient papyri and, currently, they are still frequent among chronic lesions.²

Discussing LL ulcers, a Brazilian author³ refers to venous ulcers, arterial ulcers and foot ulcers in diabetic patients. She postulates that several pathological processes, including metabolic disorders and deficiencies, can lead to the development of legs or feet ulcers. Several diseases can cause the appearance of ulcers on the legs or feet, which can become chronic when they do not heal in a period of less than four to six weeks.⁴

Lower limb ulcers can be divided into arterial and venous, with about 70% of these being of venous origin, 10-20% of arterial origin and 10-15% of mixed one. Diabetic foot ulcers, on the other hand, constitute, in developing countries, one of the most feared and common complications of diabetes mellitus. They are the leading cause of disability, morbidity and mortality among people with diabetes, and it is estimated that 15% of all people with diabetes mellitus will have foot ulcers at some point in their lives.⁶

Care must be appropriate to the specificity of each ulcer, demanding special conduct from professionals in the area. Care planning lacks information about the context of injuries. Studies on the prevalence and incidence of injuries in the lower limbs are essential to verify the magnitude of the problem, in addition to the establishment and adoption of appropriate interventions.

It is considered essential that health professionals, especially nurses, program measures to deal with this grievance, which implies conducting studies that reveal the number of patients affected by it. The implementation of care in front of this event is certainly influenced by data and records on patients treated.

Thus, the general objective of this study was to evaluate the population affected by injuries, treated at a service of care for chronic wounds of a private hospital, in the year 2018. The specific objectives were to characterize the population involved in the study, to classify the injuries as to type and number, to estimate the prevalence of lower limb injuries in the patients seen, and to identify factors associated with the occurrence of more than one ulcer.

This study is justified for contributing with statistical data and information on the occurrence of LL injuries, aiming to subsidize health policies and equip professionals to better care for people with this condition.

METHOD

This is a descriptive, cross-sectional and analytical study carried out at the Wound Healing Center of a private hospital in the city of Belo Horizonte. The sample consisted of people with injuries treated at this location.

Data were collected via electronic patient records. The sample size was calculated considering an estimation process of an unknown proportion (p) in a population, more specifically, the estimation of the percentage of injuries in the lower limbs (legs and feet) in the Wound Healing Center. Sample size calculation (n) was used, determined by the formula: 7

$$n = \frac{z_{\alpha}^2 p(1-p)}{(E_0)^2} \quad (1)$$

where: $z_{\alpha} \cong 1,96$ (for estimates using 95% confidence intervals)

p = is the expected proportion of subjects in the study

E_0 = is a measure of sampling error or precision that is accepted for the study.

To calculate the sample size, 50% was considered as an estimate for the expected proportion of patients with injuries to the lower limbs, a value that is valid for any result observed later in the research.

Considering this an estimate for the expected proportion of the event in patients ($p=0.50$), a 5% error margin over this estimate ($E_0 = 0.05$) and the calculation by 95% confidence interval, the size of the sample was 320 patients treated for injuries.

Patients with injuries treated at the Wound Healing Center of this hospital and over 18 years old were included during the year 2018.

Data collection took place during the second half of 2019. From the sample of 320 medical records of patients treated at the hospital's Wound Healing Center, the prevalence of lower limb injuries was calculated. The records of this service are electronic. For data collection, a structured form containing two parts was used. In part I, socio-demographic data were collected: gender, age, employment status (retired or active) and skin color. In part II, the patient's diagnoses and clinical aspects of the lesion (type, number of lesions and duration of the lesion) were analyzed.

The collected data were recorded in a Microsoft Excel spreadsheet, using the double-entry technique. Subsequently, the data were exported and analyzed using the Statistical Package for Social Science (SPSS) software, version 11.5 for statistical analysis, using the calculation of the prevalence rate and absolute and relative frequencies, to describe the variables collected and mean and deviation pattern. For the calculation of

prevalence, the following formula was used:⁷

$$\text{Prevalence} = \frac{\text{No. of patients with lesions specifically in the lower limbs}}{\text{Total number of patients evaluated}^*} \times 100$$

*As there were no healthy patients in the sample, that is, all patients had lesions, the denominator was the number of all patients with lesions that were not specifically in the lower limbs.

The project was sent to the Ethics Committee of this hospital, having been approved on September 25, 2019, under opinion number 3,692,707. As the data are retrospective and collected from medical records, the COEP was asked to waive the Free and Informed Consent Form.

RESULTS

Regarding gender, 58.4% were female and 41.6% were male. Considering the skin color variable, 53.1% were white, 35.3% brown, 9.4% yellow and 2.2% black. As for marital status, 59.1% were married, 10.3% single, 2.2% in a stable relationship and 28.4% declared themselves in another

condition. With reference to employment status, 52.1% were retired, 30% active workers, 9.6% housewives and 8.7% declared themselves in another condition.

Concerning the age variable, an average age of 68.2 years was obtained. The youngest patient was 20 years old and the oldest 101 years old. As for weight, the average was 76.3 kg. The patient with the highest weight had 160 kg and the one with the lowest weight, 45 kg. Height ranged from 1.03 m to 1.94 m, with an average of 1.67 m.

Respecting ulcer, an estimate was made in months. The mean was 17.8 months of living with the ulcer, the minimum was one month and the maximum was 444 months (37 years). These variables are shown in Table 1:

Table 1 – Patient characteristics (n=320) treated at the Wound Healing Center of a private hospital in the city of Belo Horizonte in relation to age, weight, height and BMI. Belo Horizonte, MG, Brazil, 2018.

Variable	Mean	Median	Minimum	Maximum	Standard deviation	Coefficient of variation
Age years)	68.2	70.0	20.0	101.0	17.8	26%
Weight (Kg)	76.3	75.0	45.0	160.0	15.8	21%
Height (m)	1.67	1.67	1.03	1.94	0.10	6%
BMI (Kg/m ²)	27.5	26.2	15.6	74.5	5.9	21%
ulcer time (months)	17.8	9.0	1.0	444.0	36.3	204%

Note: n = 320.

To assess the nutritional status of patients, the Body Mass Index (BMI) was used, based on the formula $BMI = \text{Weight}/\text{Height}^2$. Its classification followed the intervals established by the World Health Organization for adults: <18.4 low weight; 18.5 -24.9 normal weight; 25 -30 overweight and > 30 obese. The mean BMI in this study was 27.5.

As for the number of injuries, it was observed that 86% had a single ulcer, while 14% treated more than one ulcer.

Regarding the classification about the site of the injuries (lower limb ulcer or ulcer in other sites), the following classification was considered:

- 1) Arterial ulcer (limb lesion);
- 2) Pressure ulcer (ulcer in other places than specifically in the lower limbs);

- 3) Diabetic foot lesions (lower extremities);
- 4) Venous ulcer (lesion in lower limbs);
- 5) Traumatic ulcer (ulcer in other places than specifically in the lower limbs);
- 6) Other injuries (ulcer in other places than specifically in the lower limbs).

When there was a pressure ulcer or traumatic ulcer to the legs and feet, these were considered injuries in places other than the LL, as they were not in the classification: arterial ulcer, venous ulcer and diabetic foot ulcer. It is important to highlight that some patients had more than one type of lesion.

The following results were obtained, illustrated in Table 2:

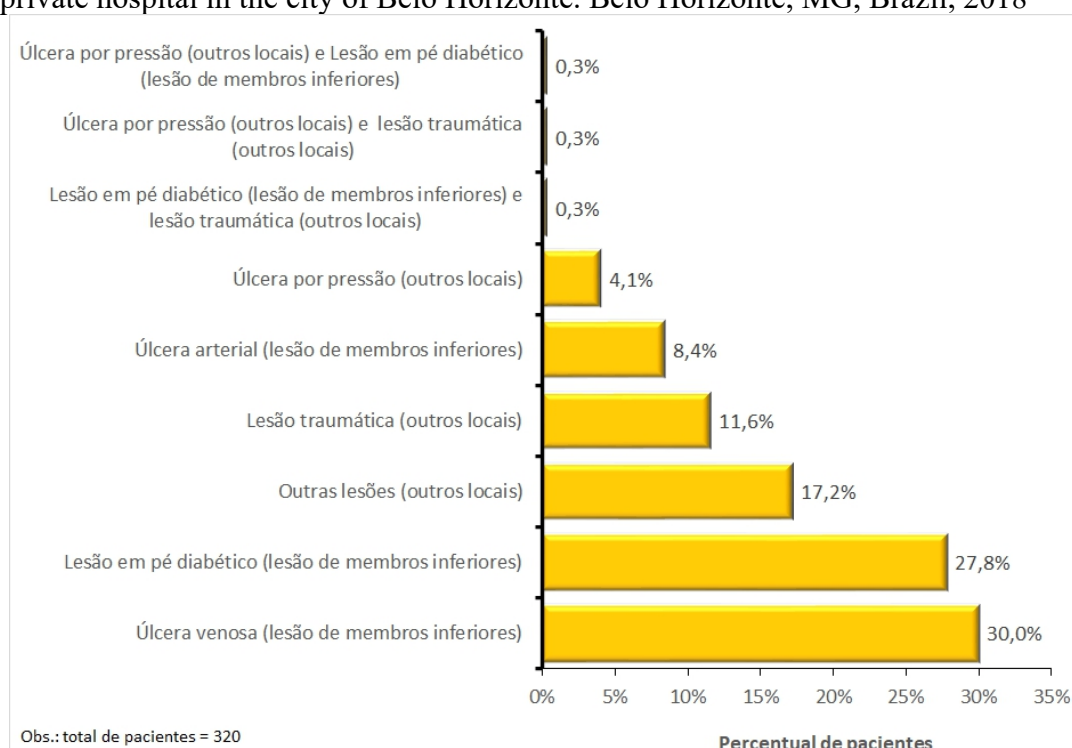
Table 2 -Classification of the type of ulcer in patients (n=320) treated at the Wound Healing Center of a private hospital in the city of Belo Horizonte. Belo Horizonte, MG, Brazil, 2018.

Type of ulcer	No. of injuries	%
---------------	-----------------	---

Arterial ulcer	28	8.75
Venous ulcer	96	30.0
Diabetic foot ulcer	86	27.8
Pressure ulcer (ulcer in locations other than specifically lower limbs)	14	4.37
Traumatic ulcer (ulcer to locations other than specifically lower limbs)	39	9.06
Other injuries (ulcer at sites other than the lower limbs specifically)	57	16.8

The following graphic (Graph 1) illustrates this information:

Graphic 1– Classification of lesions in patients (n=320) treated at the Wound Healing Center of a private hospital in the city of Belo Horizonte. Belo Horizonte, MG, Brazil, 2018



Regarding prevalence, it is recalled that this constitutes the number of cases of a disease at a given moment. We found that of the 320 patients attended at the Wound Healing Center, 210 had lower limb injuries, a prevalence of 66% (95% confidence interval = [61%; 71%]).

Univariate analysis was performed (quantitative variables: gender, race, marital status and employment status) to identify possible factors associated with multiple injuries (patients who had more than one ulcer). None of the variables investigated showed a significant difference in relation to

the fact that the patient had more than one lesion.

Univariate analysis was performed (quantitative variables: age, weight, height, BMI and time in months) and the occurrence of lower limb injuries. Age and time of ulcer showed significantly different results

between the two groups of patients, that is, patients with LL injuries and patients with injuries other than specifically LL. Table 3 illustrates this data:

Table 3 – Univariate analysis of quantitative variables to identify factors associated with lower limb injuries in patients (n=320) treated at the Wound Healing Center of a private hospital in the city of Belo Horizonte. Belo Horizonte, MG, Brazil, 2018

Variable	Lower limb ulcer?	Average	median	Standard deviation	p-value
Age years)	Yea	70.7	72.0	14.5	0.019
	No	63.3	64.0	22.3	
Weight (Kg)	Yea	76.3	73.0	16.2	0.603
	No	76.4	76.0	15.1	
Height (m)	Yea	1.67	1.68	0.09	0.585
	No	1.66	1.67	0.13	
BMI (Kg/m ²)	Yea	27.3	25.9	5.4	0.298
	No	27.9	26.8	6.7	
Ulcer time (months)	Yea	21.6	12.0	42.1	0.000
	No	10.4	3.0	18.8	

Univariate analysis of categorical variables was performed to identify factors associated with lower limb injuries. It was observed that the variables skin color and work status presented significantly different

results between the two groups of patients (patients with one lesion and patients with more than one lesion). These results are shown in Table 4:

Table 4 – Univariate analysis of categorical variables to identify factors associated with lower limb injuries in patients (n=320) treated at the Wound Healing Center of a private hospital in the city of Belo Horizonte. Belo Horizonte, MG, Brazil, 2018.

Variable	Frequency	Number of patients with lower limb injuries	Prevalence of patients with more than one lesion	p-value
Gender				
Feminine	187	126	67.4%	0.633
Male	133	86	64.7%	
Skin color				
White	170	102	60.0%	0.024
Brown	113	84	74.3%	
Yellow	30	23	76.7%	
Black	7	3	42.9%	
Marital status				
Married	189	126	66.7%	0.479
Other	91	63	69.2%	
Single	33	18	54.5%	
Stable union	7	5	71.4%	
Employment status				
Retired	167	113	67.7%	0.032
Active	96	54	56.3%	
Other	28	23	82.1%	
Home worker	29	22	75.9%	

DISCUSSION

Knowing the sociodemographic and epidemiological characteristics of patients with skin lesions is instrumental in planning and implementing comprehensive and systematized care.⁸

Approximately 60% of our sample were constituted of married people. In a study on adherence to treatment of venous ulcers⁹ 63.4% of people were married or in a stable relationship. The authors state that a partner can contribute to the adherence to a healthier lifestyle.

In this study, the mean age was 68.2 years, that is, elderly people. A study¹⁰ that aimed to explore pain in people with different leg ulcers diagnoses observed that most of the participants were of advanced age (over 80 years) and frequently suffered from pain and sleep disorders. Research¹¹ on the prevalence of chronic ulcer and associated factors in the elderly highlights that the presence of chronic wounds in the elderly, especially diabetic ulcers or chronic vasculogenic ulcers, implies greater difficulties in adhering to the practice of physical activity, as they cause pain and

decreased range of motion for long periods of time.

More than 50% were retired, a fact that may be related to advanced age, which is frequent in this work. In a study on the prevalence of chronic injuries in a municipality in Minas Gerais¹², most participants were professionally inactive, and in this study, most of them were elderly. It is also believed that the ulcer may be compromising the ability to perform some work activity.

Females were more frequent, with almost 60% of the sample. In a study on clinical and epidemiological characteristics of people with leg injuries, specifically venous ulcers, the authors¹³ found that the majority were female. Still regarding venous ulcers in women, pregnancy plays an important role in the initiation and development of chronic venous diseases in women. The changes in the venous system that occur during pregnancy are linked to hormonal secretions as well as compression of the iliac veins by the pregnant uterus.¹⁴

The average weight found was 76.3 kg, and the average BMI was 27.5, characterizing a sample in overweight conditions. It is recalled that in this study, an average age of 68.2 years was obtained, that is, the average of elderly patients. According to the World Health Organization, in the elderly, overweight is considered when BMI is greater than or equal to 25 and obesity

greater than or equal to 30.¹⁵ In a study on the healing of venous ulcers¹⁶, the BMI assessment showed that 87.5% of the participants were outside the weight standards considered normal, highlighting that 43.75% were obese grade I; 18.75% with grade II obesity and 12.50% with grade III obesity.¹⁵ There are several complications caused by obesity, including irreversible injuries and complications that generate physical disability or even death.¹⁷

Regarding the number of injuries, it was observed that 86% had a single ulcer, while 14% treated more than one ulcer. These data corroborate a research¹⁸ carried out in Maranhão, where about 73.3% of the participants had a single lesion. However, it was a research with hospitalized patients.

Regarding the classification of lesions, it was found that, of the total of 320 patients, 210 had LL lesions, that is: venous ulcer, arterial ulcer and diabetic foot, while 110 were distributed in lesions other than specifically LL. According to a study carried out in Minas Gerais¹⁹, chronic venous ulcers are the most frequent; and more than 70% of them do not heal even with adequate topical and compression therapy, leading to relapses. Discussing venous ulcers, the authors account the complexity and importance of adherence to the treatment of venous ulcers, considering that the family is seen as a fundamental support for coping with this condition.²⁰ Injuries to the feet of people

with diabetes mellitus result from traumas that are often not perceived by the patient, due to the decrease or loss of pain sensitivity.

In this study, the prevalence of LL ulcer in a population treated at a wound healing center was verified. In calculating prevalence, the numerator covers the total number of people who have the specific condition in a given period, while the denominator is the total sample studied in the same period.⁷ In this study, the specific period was the year 2018. In a total of 320 patients with skin lesions, a prevalence of 66% of lower limb lesions was obtained, that is, a high prevalence. However, it is noteworthy that in the total sample, there were no healthy patients, meaning that all of them had some kind of ulcer. In a study on the prevalence of chronic injuries in 339 elderly people assisted by a health service, the prevalence of pressure injuries was 5.0%, diabetic ulcers 3.2% and vasculogenic ulcers 2.9%.¹¹ A cross-sectional study that estimated the prevalence of chronic injuries in residents of a medium-sized municipality in the Zona da Mata of Minas Gerais state pointed to a value of 0.164%, corresponding to 1.64/1,000 inhabitants.¹²

As for the univariate analysis, to identify associated factors between variables, it is considered that the p value less than or equal to 0.05 indicates that there are significant differences between the items compared. Univariate analysis (age, weight,

height, BMI and time of ulcer) was performed to identify possible factors associated with multiple injuries. Univariate analysis was also performed (quantitative variables: gender, race, marital status and employment status) to identify possible factors associated with multiple injuries. None of these investigated variables showed a significant difference in relation to the fact that the patient had more than one lesion.

However, it was observed that the variables skin color and employment status presented significantly different results between two groups of patients. A study that aimed to analyze the prevalence of chronic ulcer and associated factors of this condition in the elderly¹¹ found, in the analysis of variables, the occurrence of chronic ulcer associated with socioeconomic and clinical characteristics. It is noteworthy that these authors concluded that, in relation to socioeconomic variables, the occurrence of wounds remained associated with the development of some work activity.

FINAL CONSIDERATIONS

At the end of this work, it is concluded that the objectives were partially achieved. It is expected that the results contained in this study will contribute to the instrumentalization of nurses, especially the stomatherapist nurse in the care of patients with lower limb injuries.

The profile of patients with lower limb injuries at the hospital in question was mostly female, white, married, retired, with a mean age of 68.2 years, overweight and with a single lesion.

Most had venous ulcer (30%), followed by diabetic foot ulcer (27.8%) and arterial ulcer (8.75%). The remainder (injuries in locations other than the lower limbs specifically) amounted to 33.4%.

Of the 320 patients attended at the Wound Healing Center, 210 had lower limb injuries, constituting a prevalence of 66%.

Age and time of ulcer showed significantly different results between the two groups of patients, that is, patients with LL injuries and patients with injuries other than specifically LL.

The variables skin color and work status showed different significance ($p \geq 0.05$) in both groups of patients (patients with one lesion and patients with more than one lesion), that is, there is an association between these variables and the number of injuries.

Finally, although the work responds to the objective of the study, there was a limitation of the results, the incompleteness of some medical records, with the suppression of some data, causing important items to be removed from the data collection instrument.

REFERENCES

1. Garcia AB, Müller PV, Paz PO, Duarte ERM, Kaiser DE. Percepção do usuário no auto-cuidado de úlcera em membros inferiores. *Rev Gaúcha Enferm* [Internet]. 2018 [citado em 09 out 2020];39:e2017-0095. Disponível em: <https://doi.org/10.1590/1983-1447.2018.2017-0095>.
2. Silva FAA, Moreira TMM. Características sociodemográficas e clínicas de clientes com úlcera venosa de perna. *Rev. enferm. UERJ* [Internet]. 2011 [citado em 10 out 2020];19(3):468-72. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/bde-22328>
3. Borges EL. Feridas; úlceras dos membros inferiores. Rio de Janeiro: Guanabara Koogan; 2012. 299p.
4. Borges EL, Ferraz AF, Carvalho DV, Mattos SS, Lima VLN. Prevenção de recidiva de úlcera varicosa: um estudo de coorte. *Acta Paul Enferm* [Internet]. 2016 [citado em 12 out 2020];29(1):9-16. Disponível em: <http://dx.doi.org/10.1590/1982-0194201600003>
5. Lauer CR, Oliveira MF, Lanes PMC, Naji R. Diagnóstico e evolução de úlcera mista: um relato de caso. *Rev. APS*. [Internet]. 2018 [citado em 12 jul 2020];21(1):161-162. Disponível em: <http://www.ufcg.edu.br/revistasaudeficiencia/index.php/RSC-UFCG/article/view/461/286>
6. Marian TG, Alemayehu A, Tesfaye L, Mequannt W, Temesgen K, Yetwale F, Limenih MA. Prevalence of Diabetic Foot Ulcer and Associated Factors among Adult Diabetic Patients Who Attend the Diabetic Follow-Up Clinic at the University of Gondar Referral Hospital, North West Ethiopia, 2016: Institutional-Based Cross-Sectional Study. *Journal of Diabetes Research* [Internet]. 2017 [cited 24 Aug. 2021];2017:2879249. Available in: <https://doi.org/10.1155/2017/2879249>

7. Hulley SP, Cummings SR, Browner WS, Grady DH, Newman TB. Delineando a pesquisa clínica: uma abordagem epidemiológica. Porto Alegre: Artmed; 2006.301p.
8. Stefanelo RB, Prazeres SMJ, Santos FS, Mancia JR, Leal SMC. Caracterização de pacientes com lesões de pele hospitalizados em unidades de internação clínico-cirúrgica. *Enferm. Foco* [Internet]. 2020 [citado em 29 set 2020];11 (2):105-111. Disponível em: <https://doi.org/10.21675/2357-707X>.
9. Liberato SMD, Araújo RO, Souza AJG, Marconato AMP, Costa IKF, Torres GV. Adesão ao tratamento de pessoas com úlceras venosas atendidas na atenção primária à saúde. *Aquichan* [Internet]. 2017 [citado em 29 set 2020];17(2):128-139. Disponível em: <https://doi.org/10.5294/aqui.2017.17.2.2>
10. Hellström A, Nilsson C, Nilsson A, Fagerström C. Leg ulcers in older people: a national study addressing variation in diagnosis, pain and sleep disturbance. *BMC Geriatrics* [internet]. 2016 [cited 25 Aug. 2021];16(25):1-9. Available in: <https://doi.org/10.1186/s12877-016-0198-1>
11. Vieira CPB, Araújo TME. Prevalência e fatores associados a feridas crônicas em idosos na atenção básica. *Rev. esc. enferm. USP* [Internet]. 2018 [citado em 18 jul 2019];52: e03415. Disponível em: <https://org/10.1590/s1980-220x2017051303415>
12. Borges EL, Nascimento Filho HM, Pires Junior JF. Prevalência de lesões crônicas de município da Zona da Mata Mineira (Brasil). *Rev Min Enferm.* [Internet]. 2018 [citado em 18 ago 2019];22:e-1143. Disponível em: <http://www.dx.doi.org/10.5935/1415-2762.20180074>
13. Cruz CC, Caliri MHL, Bernardes RM. Características epidemiológicas e clínicas de pessoas com úlcera venosa atendidas em unidades municipais de saúde. *Estima* [Internet]. 2017 [citado em 18 ago 2019];16:e-1218. Disponível em: http://www.dx.doi.org/10.30886/estima.v16.496_PT
14. Cornu-Thenard A, Boivin P. Chronic venous disease during pregnancy. *Phlebology* [Internet]. 2014 [cited 25 Aug. 2021]; 28(1):138-45. Available in: <https://www.phlebology.org/wp-content/uploads/2014/09/Phlebology83.pdf>
15. Silveira EA, Pagotto V, Barbosa LS, Oliveira C, Pena GG, Velasquez-Mellendez G. Acurácia de pontos de corte de IMC e circunferência de cintura para a predição de obesidade em idosos. *Ciênc. Saúde coletiva* [Internet]. 2020 [citado em 25 ago 2021];25(3):1073-82. Disponível em <https://doi.org/10.1590/1413-81232020253.13762018>
16. Ribeiro APL, Oliveira BGRB, Soares MF, Barreto BMF, Futuro DO, Castilho SR. Efetividade dos géis de papaína a 2% e 4% na cicatrização de úlceras venosas. *Rev. esc. enferm. USP* [internet]. 2015 [citado em 11 ago 2019];49(3):395-402. Disponível em: <https://org/10.1590/S0080-623420150000300006>
17. Oliveira APS, Santos WL. O conhecimento do enfermeiro sobre a obesidade- revisão de literatura. *Rev. Cient. Sena Aires* [internet]. 2018 [citado em 11 ago 2019];7(2):141-7. Disponível em: <http://revistafacesa.senaaires.com.br/index.php/revisa/article/view/314>
18. Ribeiro GSC, Cavalcante TB, Santos KCB, Feitosa AHC, Silva BRS, Santos GL. Pacientes internados com feridas crônicas: um enfoque na qualidade de vida. *Enferm. Foco* [internet]. 2019 [citado em 11 nov 2019]; 10(2):70-75. Disponível em: <https://doi.org/10.21675/2357-707X.2019.v10.n2.1740>
19. Oliveira MF, Viana BJB, Matozinhos FP, Silva MMS, Pinto DM, Moreira AD, Velásquez-Meléndez G, Gomes FSL. Feridas em membros inferiores em diabéticos e não diabéticos: estudo de sobrevivência. *Rev. Gaúcha Enferm* [internet]. 2019 [citado em 10 jan 2020];40(e20180016). Disponível em: <https://org/10.1590/1983-1447.2019.20180016> -

20. Ferreira SL, Barbosa IV, Mota CFA, Alexandre SG, Abreu RNDC, Studart RMB. Fatores intervenientes no cuidado à pessoa com úlcera venosa sob a ótica de familiares.
Enferm. Foco [internet]. 2020 [citado em 10 jan 2021];11(1):38-43. Disponível em: <https://doi.org/10.21675/2357-707X>.

RECEIVED: 04/07/21

APPROVED: 05/30/22

PUBLISHED: Oct/22