

Characterization of People with Venous Ulcer Assisted at the Primary Health Care

ORIGINAL

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Abstract

Background: The venous ulcer is a severe public health problem that requires proper care and skilled professionals.

Objective: To characterize, as the sociodemographic, health and assistance aspects, adults and elderly with venous ulcers treated with the primary health care.

Methods: A cross-sectional survey conducted in primary health care of Natal, Rio Grande do Norte, Brazil, from February to September/2014 with structured interview compound of sociodemographic and biophysiological measures. The research followed the ethical precepts.

Results: Of the total, 61.4% were aged greater or equal to 60 years old. Among the elderly, women predominated ($p=0.011$), with a partner ($p=0.025$), primary education ($p=0.016$), no occupation ($p<0.001$), non-alcoholic ($p=0.029$), with diabetes mellitus ($p=0.002$) and hypertension ($p=0.001$). As for the health and assistance aspects, there was a tendency of worse outcomes among the elderly.

Conclusion: There was a majority of elderly women, without occupation, with a partner, low income, comorbidity, venous ulcer time more than one year, recurrence and pain. It was evident the need for comprehensive care to people with venous ulcers, especially the elderly.

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Introduction

Due to its high incidence, chronicity, recurrence and long and complex treatments, venous ulcers (VU) is a major public health problem and requires proper treatment, specific behavior for each situation and technically and scientifically trained professionals to monitor the healing process [1, 2].

One of the factors contributing to the venous ulcers is the aging of the population [1, 2]. With increasing age, older people become more susceptible to develop VU due to all the changes they arise, especially changes in blood flow, decreased mobility and the decline of muscle tone [3].

This disease also affects a large portion of the adult population, interfering with morbidity and mortality rates by producing chronic changes in the integrity of the skin, and causing disability and/or amputation of the lower limbs of these individuals [4].

The care for VU people is mostly in the community, whether in local or home health services, with notable participation of nurses [2]. The primary health care (PHC), through the Family Health Strategy (FHS) plays a key role in meeting the person in treatment of ulcers, since it is a privileged space for the development of health care in full, meeting specific demands, enabling the planning and execution of a holistic care, individualized and problem-solving, encouraging adherence to treatment [5, 6].

A progress study with 101 users showed that QOL was committed, emotional and aesthetic state, with the worst average among individuals with more than a year of injury and concluded that it is necessary interventions and health promotion activities of this population [7].

Thus, the growing aging population with the appearance of typical diseases combined with preexisting comorbidities cause changes in the distribution of different age groups [8]. Thus, the professional nurse within the multidisciplinary team must recognize the clinical and socioeconomic profile of the population with chronic venous insufficiency (CVI), through problems prevention

guidelines, such as wounds, especially in the elderly, considering their particularities for planning comprehensive care [9].

Therefore, to better understand this problem and to know the sociodemographic, clinical and care profile of people with VU is the first step to proper planning to patients care needs to improve their health, considering their specificities according to age [10, 11].

In this scenario, the question is: Does the characterization of people with venous ulcers differ according to age? What are the socio-demographic, health and welfare differ aspects between adults and the elderly with this assisted injury in primary health care?

This study aimed to characterize adults and elderly patients with venous ulcers treated with the primary health care according to their sociodemographic, health and welfare characteristics.

Method

This research is a cross-sectional, descriptive study with a quantitative approach, performed in PHC of Natal/Rio Grande do Norte (RN), Brazil. According to the Municipal Secretary of Health, the city is divided into five health districts (North I, North II, East, West and South), for assistance organizational purposes of which there are 37 Health Units Family (FHC) and five mixed units distributed, where the research took place.

The study population was people with VU assisted in these services, totaling 101 individuals. The inclusion criteria established were: to be 18 years old; to have an active VU at the time of collection; to be ascribed to the unit, and to have verbal communication skills. Having ulcers of mixed origin was the exclusion criterion.

In the data collection, a structured interview was used, and collection of bio-physiological measures were held, based on clinical guidelines, in which 27 items related to socio-demographic (six), clinical (ten) and care (twelve) data were used [12].

The sociodemographic characteristics are education, marital status, age, occupation, per capita income and gender. The group of clinical conditions was composed of diabetes mellitus (DM), alcohol consumption, high blood pressure (hypertension), other diseases, presence and intensity of pain, relapses, sleep, smoking, and time of the injury. The care data variables were: training of the professional responsible for dressing, reference and counter-reference, Doppler exam achievement, guidance on compression therapy, elevation of the lower limbs and regular exercise, annual consultation with an angiologist, materials adaptation used in dressing, VU time, dressing performing site, use of compression therapy, and documentation of clinical findings in medical records.

The collection was from February to September 2014, through the application of the instrument in the service centers or the homes of participants, when necessary. The team that carried out the data collection was researchers, nurses, and nursing students, properly trained on the use of the instrument and research.

Data were organized in Microsoft Excel tables and analyzed using descriptive statistics, with absolute and relative frequencies. Inferential analysis was performed in statistical IBM SPSS using chi-square test and Fisher exact test, adopting a significance level of 5.0% ($\alpha = 0.05$).

This research followed the resolution 466/2012 [13] and was approved by the Ethics Committee in Research of the Federal University of Rio Grande do Norte/UFRN, with General Certificate for Ethics Assessment (CAAE) N° 07556312.0.0000.5537. Participants signed the informed and consent form, ensuring privacy and confidentiality of data and other guidance on the formalities of the research. A letter of the consent of the municipal health office was obtained, and it was sent to all Directors of the health units.

Results

In the characterization of the sample, 61.4% were 60 years old, and for the other characteristics, 85.1% had completed elementary school, 63.4% had a partner (married/stable), 75.2% had no occupation/profession, 72.3% had a per capita income of up to one minimum wage and 66.3% were female. In the distribution according to age, only income per capita ($p=0.408$) showed no statistically significant difference between the age groups (**Table 1**).

Table 1. Distribution of sociodemographic aspects according to the age group of people with venous ulcers treated with the primary health care.

Sociodemographic aspects	Age group (years)			p value*
	Up to 59 n(%)	≥ 60 n(%)	Total n(%)	
Education				
Up to Elementary School	29(28.7)	57(56.4)	86(85.1)	0.016
High School and Higher Ed.	10(9.9)	05(5.0)	15(14.9)	
Marital Status				
Married/Stable Union	30(29.7)	34(33.7)	64(63.4)	0.025
Single/Widow/Divorced	09(8.9)	28(27.7)	37(36.6)	
Profession/Occupation				
Absent	20(19.8)	56(55.4)	76(75.2)	<0.001
Present	19(18.8)	06(5.9)	25(24.8)	
Per capita income*				
< 1 minimum wage	30(29.7)	43(42.6)	73(72.3)	0.408
> 1 minimum wage	09(8.9)	19(18.8)	28(27.7)	
Gender				
Female	20(19.8)	47(46.5)	67(66.3)	0.011
Male	19(18.8)	15(14.9)	34(33.7)	
Total	39(38.6)	62(61.4)	101(100.0)	

*: Chi-Square; **: Minimum wage = R\$ 724.00 (Brazilian currency) from February to September 2014.

Table 2. Presentation of health aspects according to the age of people with venous ulcers treated with the primary health care.

Health aspects	Age group (years)			p value*
	Up to 59	≥ 60	Total	
	n(%)	n(%)	n(%)	
Other diseases				
Absent	37(36.6)	56(55.4)	93(92.1)	0.480**
Present	02(2.0)	06(5.9)	08(7.9)	
Alcohol consumption				
Absent	30(29.7)	58(57.4)	88(87.1)	0.029**
Present	09(8.9)	04(4.0)	13(12.9)	
Smoking				
Absent	31(30.7)	55(54.5)	86(85.1)	0.204
Present	08(7.9)	07(6.9)	15(14.9)	
Diabetes mellitus				
Absent	36(35.6)	40(39.6)	76(75.2)	0.002**
Present	03(3.0)	22(21.8)	25(24.8)	
Sleep				
> 6 hours	18(17.8)	40(39.6)	58(57.4)	0.069
< 6 hours	22(21.8)	22(21.8)	43(42.6)	
SAH				
Absent	30(29.7)	26(25.7)	56(55.4)	0.001
Present	09(8.9%)	36(35.6)	45(44.6)	
Current VU Time				
< 1 year	19(18.8)	33(32.7)	52(51.5)	0.659
> 1 year	20(19.8)	29(28.7)	49(48.5)	
Relapses				
Present	23(22.8)	46(45.5)	69(68.3)	0.109
Absent	16(15.8)	16(15.8)	32(31.7)	
Intensity of pain				
Moderate a intense	27(26.7)	50(49.5)	77(76.2)	0.189
Absent and light	12(11.9)	12(11.9)	24(23.8)	
Pain				
Present	34(33.7)	54(53.5)	88(87.1)	0.990
Absent	05(5.0)	08(7.9)	13(12.9)	
Total	39(38.6)	62(61.4)	101(100.0)	

*: Chi-Square; **: Fisher Exact; HAS - hypertension; UV – venous ulcer

Table 2 distributed the health aspects of people with VU assisted in the PHC. The variables related to diabetes mellitus (DM), hypertension (SAH) and alcohol consumption were statistically significant. It is noted that in the other diseases group there were Alzheimer's, chronic anemia, arrhythmia, arthritis, asthma, heart disease and epilepsy.

Table 3 distributed the characteristics of people with VU care, observing the predominance of negative points, but no statistically significant differences between adults and the elderly. Among the **Table 3.** Distribution of care aspects of adult and elderly patients with venous ulcers treated with the primary health care.

Care aspects	Age group (years)			p value*
	Up to 59	≥ 60	Total	
	n(%)	n(%)	n(%)	
Guidance for lifting the lower limbs				
Present	35(34.7)	57(56.4)	92(91.1)	0.731*
Absent	04(4.0)	05(5.0)	09(8.9)	
Medical record				
With record	30(29.7)	42(41.6)	72(71.3)	0.321
Without record	09(8.9)	20(19.8)	29(28.7)	
Materials used in the dressing				
Suitable	28(27.7)	37(36.5)	65(64.4)	0.216
Unsuitable	11(10.9)	25(24.8)	36(35.6)	
Local treatment				
Health units and/or hospitals	23(22.8)	31(30.7)	54(53.5)	0.379
At home	16(15.8)	31(30.7)	47(46.5)	
Guidance for compression therapy				
Absent	21(20.8)	33(32.7)	54(53.5)	0.591
Present	18(17.8)	29(28.7)	47(46.6)	
Exercises guidance				
Absent	22(21.8)	37(36.6)	59(58.4)	0.746
Present	17(16.8)	25(24.8)	42(41.6)	
Professional responsible for dressing				
Without training	24(23.8)	36(35.6)	60(59.4)	0.729
With training	15(14.9)	26(25.7)	41(40.6)	
Eco Doppler				
Absent	26(25.7)	45(44.6)	71(70.3)	0.527
Present	13(12.9)	17(16.8)	30(29.7)	

Care aspects	Age group (years)			P value*
	Up to 59	≥ 60	Total	
	n(%)	n(%)	n(%)	
Other diseases				
Absent	37(36.6)	56(55.4)	93(92.1)	0.480**
Present	02(2.0)	06(5.9)	08(7.9)	
Time of treatment				
≥ 1 year	25(24.8)	46(45.5)	71(70.3)	0.280
< 1 year	14(13.9)	16(15.8)	30(29.7)	
Reference and counter-reference				
Absent	25(24.8)	48(47.5)	73(72.3)	0.145
Present	14(13.9)	14(13.9)	28(27.7)	
Compression therapy				
Absent	31(30.7)	57(56.4)	88(87.1)	0.069
Present	08(7.9)	05(5.0)	13(12.9)	
Consultations with angiologist				
< 4 per year	35(34.7)	59(58.4)	94(93.1)	0.425**
≥ 4 per year	04(4.0)	03(3.0)	07(6.9)	
Total	39(38.6)	62(61.4)	101(100.0)	

*: Chi-square; **: Fisher Exact test

elderly, 56.4% had guidance for lifting the lower limbs; 41.6% had medical records, 36.5% used materials suitable for the dressing, and only 28.7% and 24.8% had guidance for compression therapy and performing exercises, respectively. Of the people who performed the dressing, 35.6% had no training, 44.6% did not undergo the Doppler examination, 45.5% was for a year or more in treatment, and 58.4% had less than four consultations with an angiologist annually.

Discussion

The predominance of elderly people as a result of this research corroborates other studies describing the profile of people with VU [10, 14, 15, 16, 17]. These lesions are more common in the elderly with low income and education and more than a year of injury, according to the findings [17].

There was a predominance of females in both age groups since the CVI is most commonly identified in

women [10, 14, 15]. It is noteworthy the association between age and gender, with a higher frequency of injury among older women. Advancing age is considered a risk factor for the emergence of VU, because the natural physiological changes of aging make more susceptible elderly [18].

Regarding marital status, the number of people who had a partner was higher, as well as in other studies, with high numbers of single, widows or divorced people among the elderly [10, 17]. The wound conditions along with the old age can hinder the performance of activities of daily living. The presence of a partner or family can contribute to the implementation of these activities. However, the importance of encouraging the maintenance of the independence and autonomy of the elderly is emphasized [10].

People with the elementary school were more present among individuals aged 60 years or more. In this sense, understanding and knowing the disease is necessary to define the behavior and adaptation of people with VU facilitated among young people because they have better educational level [19].

Most people do not exercise any labor activity at the time of data collection and, most elderly were retired or pensioners. People with injuries may live with chronic pain and loss partially autonomy in carrying out their tasks, interfering with the ability to work causing their removal and often are taken early retirement and can trigger a series of consequences with repercussions on the socio-economic aspects [1, 16].

In both age groups, individuals with incomes up to one minimum wage predominated, but an association between income and age was not identified. Low income is a factor that may be linked to low education or a large number of retirees, as most received a minimum wage.

When considering the treatment of a chronic injury, such as VU, it is costly by its prevalent and relapsing characteristic. The low income can be a factor that hinders the healing process, by interfering

with access to services and adherence to treatment [14, 20].

It is known that the elderly people are the most affected by chronic diseases, as evidenced by the presence of an association between age and hypertension and diabetes mellitus. It is common to associate other conditions with CVI, being difficult to cope with situations of complications because the elderly have different treatments to be performed [15].

The metabolic changes resulting from the DM cause skin fragility that contributes to the appearance of injuries [9, 16]. In another study, a significant association with CVI with SAH highlighted the importance of controlling these diseases [10].

Non-alcoholic people in both age groups predominated, but the number of non-drinkers among the elderly was higher, and it was statistically significant, demonstrating that more young people practice the habit of drinking alcohol. On the other hand, smoking was absent in both groups and was not associated with age. They are factors that can negatively influence the healing, and in this sense, the elderly of this research are better compared to adults [19, 20].

The up to one-year treatment period was more prevalent in the elderly and this situation may be due to the presence of repeated injuries in this population, as shown by the high number of relapses. Old age brings factors that make them more vulnerable elderly to recurrence of the injury, undergoing a recurring suffering with the reappearance of these lesions [17].

The person who has the impaired tissue integrity diagnosis has other important features that deserve attention in care, and may contribute to the reduction of recurrences [9]. About 70.0% of ulcers reopen until the second year after complete healing, which makes the costly treatment for the patient and the health service. [21]

The pain was more frequent in people aged 60 or more, being moderate or severe. This is a com-

mon symptom in people with venous ulcers, with consequences for the quality of life of people with injury and their caregivers. Thus, 17% to 65% of people with leg ulcers have already experienced intense pain. [22]

The health professional must identify this symptom and its influence in all aspects, establishing appropriate interventions for the treatment, including the pattern of sleep, while almost 60.0% of the subjects sleep more than six hours a night. The use of topical local anesthetic, for example, is an alternative indicated by a systematic review and action for pain relief and healing [22].

No care characteristic was associated with age. However, trends could be observed. The use of unsuitable materials, the dressing by people without training, the absence of compression therapy, having more than one year of treatment and lack of guidance on exercise and compression therapy were more present in the elderly. They also reported more treatment at home, which may be a result of disability or difficulty in accessing health services. Guidelines on the elevation of the lower limbs were present among adults and the elderly.

There are many differences among professionals in venous injury care. It is known that it is necessary to choose a local cover to keep the moist and clean bed and at the same time absorbing exudate, controlling existing infections, promoting rest and compression therapy in an attempt to prevent a possible recurrence. Compression therapy facilitates the venous return, and it seems to be effective to act in the cause of the problem. [22]

Combined with the selection of topical and systemic therapy, it is essential to carry out activities to promote health and disease prevention in the PHC environment offered by guidance on the use of compression therapy, elevation of lower limbs and exercise. Health education actions should promote self-care, especially in daily dressings, so that the person sees that lifestyle can influence wound healing. Regarding the elderly, who may have the

aggravating circumstance of having other chronic illnesses and disabilities, the health professional should enlighten them as to the care of treatment and prevention of injury [9].

Another issue was the high number of reference and counter-reference absence, culminating in the small number of people over four visits a year with an angiologist and Doppler exams. There was the discontinuity of care as a failure of care so that the person with VU cannot be assisted in various health care levels, with complete assistance rupture.

Conclusion

There was a predominance of elderly women, people with a partner, with elementary school, unemployed and low income. The presence of diabetes and hypertension, VU time more than a year, recurrence and presence of pain more prevalent in the elderly than in adults were highlighted.

There was more care among the elderly, a long treatment time, the absence of compression therapy, non-use of suitable materials, untrained professionals for the dressing, lack of guidance on exercise and compression therapy, absence of reference and counter-reference, consultation with an angiologist and performing vascular Doppler. The guidance for the elevation of the lower limbs was among adults and the elderly.

Before the profile found, it is pointed to the need for comprehensive care to people with VU in all their aspects, especially the elderly, including prevention, health promotion and recovery in all care levels of complexity by the principles and guidelines of the Unified Health System.

The nurse can assess and assist the person with VU and should monitor them in their treatment and prioritize the appropriate and comprehensive care.

The researchers faced some obstacles during the conduct of research, the strike of professionals that paralyzed collecting data for a few months and the difficulty of access to some participants. The study

had limitations because it is cross-sectional study, without time monitoring of the population studied. It is emphasized the need for longitudinal research with people with VU treated at PHC, contributing to the evidence of a qualified nursing care.

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