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ASSISTENTIAL AND CLINICAL ASPECTS INFLUENCE ON CHRONICITY OF VENOUS ULCERS

INFLUÊNCIA DOS ASPECTOS CLÍNICOS E ASSISTENCIAIS NA CRONICIDADE DAS ÚLCERAS VENOSAS

INFLUENCIA DE ASISTENCIA CLÍNICA Y CRONICIDAD DE LAS ÚLCERAS VENOSAS

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ABSTRACT

Objective: to investigate the influence of clinical and assistential aspects in chronic venous ulcers. **Method:** analytical, quantitative and cross conducted study done with 59 people with venous ulcers treated at 36 units of the Family Health Strategy in Maceió/AL/Northeast Brazil. Data was collected and analyzed by descriptive and inferential statistics, after approval of the research project by the Ethics Committee (Protocol 005858/2007-96). **Results:** clinical aspects that contributed to the increased length of assistance were: injury time > 6 months (p -value <0.001), pain (p -value = 0.043), recurrence (p -value <0.001); assistential aspects: inadequate products with 83.1% (p -value = 0.036). When comparing the clinical/assistential positive aspects with time of injury, the clinical positive aspects are more present in lesions up to 6 months of treatment (22.0%), with significance (p -value = 0.014). **Conclusion:** these characteristics make it difficult to tissue healing, prolonging treatment of injuries which contributes to chronic ulcers. **Descriptors:** Family Health Nursing Program; Varicose Ulcer; Health Care Quality.

RESUMO

Objetivo: verificar a influência dos aspectos clínicos e assistenciais na cronicidade das úlceras venosas. **Método:** estudo analítico, transversal e quantitativo, realizado com 59 pessoas com úlcera venosas, atendidas em 36 unidades da Estratégia Saúde da Família em Maceió/AL/Nordeste do Brasil. Os dados foram coletados e analisados pela estatística descritiva e inferencial, após aprovação do projeto de pesquisa pelo Comitê de Ética (Protocolo nº005858/2007-96). **Resultados:** os aspectos clínicos que contribuíram para o aumento do tempo de assistência foram: tempo de lesão > 6 meses (p -valor <0,001), dor (p -valor=0,043), recidiva (p -valor <0,001); nos aspectos assistenciais: inadequação dos produtos com 83,1% (p -valor=0,036). Ao comparar os aspectos positivos clínicos/assistenciais com tempo de lesão, os aspectos clínicos positivos estão mais presentes nas lesões com até 6 meses de tratamento (22,0%), apresentando significância (p -valor=0,014). **Conclusão:** essas características dificultaram a cicatrização tecidual, prolongando o tempo de tratamento das lesões, contribuindo para a cronicidade das úlceras. **Descritores:** Programa Saúde da Família; Enfermagem; Úlcera varicosa; Qualidade da Assistência à Saúde.

RESUMEN

Objetivo: investigar la influencia de los aspectos clínicos y asistenciales de las úlceras venosas crónicas. **Método:** estudio analítico, cuantitativo y transversal realizado con 59 personas con úlceras venosas tratadas a las 36 unidades de la Estrategia Salud de la Familia en Maceió/AL/Noreste de Brasil. Los datos fueron recogidos y analizados por estadística descriptiva e inferencial, después de la aprobación del proyecto de investigación por el Comité de Ética (Protocolo 005858/2007-96). **Resultados:** aspectos clínicos que han contribuido al aumento de la longitud de la asistencia fueron: tiempo de lesión > 6 meses (p -valor <0,001), dolor (p -valor = 0,043), la recurrencia (p -valor <0,001); aspectos de cuidado: productos inadecuados con 83,1% (p -valor = 0,036). Al comparar la clínica/asistencia positiva con el tiempo de la lesión, los aspectos positivos clínicos están más presentes en las lesiones de hasta 6 meses de tratamiento (22,0%), con significación estadística (p -valor = 0,014). **Conclusión:** estas características hacen que sea difícil la cicatrización de los tejidos, prolongando el tratamiento de las lesiones, lo que contribuye a las úlceras crónicas. **Descriptores:** Familia Programa de Enfermería de Salud; Úlcera Varicosa; Calidad Asistencial.

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INTRODUCTION

Leg ulcers is the major cause of morbidity and mortality, especially for its association with the individual's local and systemic factors associated with the chronicity of the lesion and frequent recurrences, besides causing pain, limitations, withdrawal from activities, which influences the quality of their lives¹⁻².

Venous ulcer (UV) is characterized by the loss of irregular tegument superficially, becoming deep, hard edges, often with yellowish exudate, starting spontaneously or traumatically. Ulcers can be single or multiple, of varying sizes and locations, it usually occurs in the middle third of the distal leg, focusing on bony prominences, especially in the medial malleolus and may involve the entire circumference of the leg if left untreated. Furthermore, it is considered a port of infection, evolving to tissue loss and also depending on the assistance the patient may receive it can lead to death.^{1,3}

Besides making the patient addict to health services, it is an important public health problem. It also brings a social and economic impact and changes in lifestyle, pain, suffering, resulting in decreased quality of life. These changes undertake not only the individual but also their family members. In this situation, difficulties may rise, often neither the patient nor the family are prepared to help and understand all aspects surrounding the issue.²⁻⁴

In Brazil, the front door to the Unified Health System (SUS) for assistance to persons with UV occurs in primary care through the Family Health Strategy (FHS), established in 1994. It was at first considered a program, than it became a strategy for reorientation of care, guided by a policy of primary or basic care.⁵

The quality of care to users depends on a competent performance of the health team, which should provide guidelines to identify users at risk and minimize predisposing factors. Based on these guidelines, care plans are established.⁶

At the FHS in the city of Maceió / Alagoas / Brazil, several factors contribute to the deficiency in the quality of care for people with venous ulcers, implying its chronicity. Among these causes, we can highlight deficiencies in the training of human resources, structural capacity and accessibility to high complexity, lack of protocol assistance and unfavorable social family context.

Given this context, this study aims to investigate the influence of clinical and care influence in chronic venous ulcers. In this perspective, by considering the UV assistance to persons a complex process and of great importance, this study may help analyzing the aspects that most influence in care, identifying problems and possible solutions, seeking to improve health care in this level of assistance.

METHOD

Analytical study with cross-sectional quantitative approach, performed in the Family Health Strategy / ESF at Maceió / Alagoas / Northeast Brazil. It is the primary health network, which all students in the field of mid-level health and graduation of the municipality may go through.

The sample consisted of 59 people with venous ulcers treated in 36 FHS units in Maceió. The selection of participants was comprised of an accessibility sample, based on the following inclusion criteria: they should have an injury of venous origin, be 18 or older, be served by the FHS; they should take part in the study voluntarily and must sign the Consent Form (TCLE).

The study met the ethical principles contained in the Declaration of Helsinki of the World Medical Association and was in accordance with Resolution 196/96, obtaining favorable opinion by the Ethics Committee of the Universidade Federal de Alagoas (UFAL), obtaining assent Protocol (CEP / UFAL No 005858/2007-96).

Data collection was conducted through a structured form, by a team composed of researchers and scholars from three Undergraduate Nursing courses previously trained. After signing the consent form, the team performed the collection during the period of three months in 2010, by reading the charts, non-participant observation, interviews and physical examinations.

The collected data was transferred to a database in the spreadsheet application Microsoft Excel 2007, it was analyzed in a statistical software, the descriptive analyses were calculated with absolute and relative frequencies, mean and standard deviation, and the inferential analysis with application of chi-square test (χ^2), considering statistical significance level of p -value <0.05 . To analyze the influence of aspects of care in chronic venous ulcers we used 10 variables: general and specific tests; infection x biopsy/culture/swab; products in the past 30 days; compressive treatment; guidance for

lifting the lower limbs and/or exercises and to use compression stockings; appointment with the angiologist; place of dressing over the past 30 days; professional who may accompany/perform curative and availability of products.

RESULTS

The clinical characterization of people with UV (Table 1) observed in this study showed that people had UV for more than six months (64.4%), they reported pain in the UV/member (86.4%) and some variables

showed statistical significance when it was analyzed the time of UV treatment, such as: length of ulcer (p-value <0.001), pain in limb and UV (p-value = 0.043), ulcer area (p-value = 0.031) and the recurrence (p-value <0.001), which shows that a treatment time greater than one year influences the clinical characteristics mentioned, leading to deterioration. It is noteworthy that among the people who had recurrence, 67.8% had a lesion of over a year.

Table 1. Clinical characterization and analysis of venous ulcers according to treatment time of UV. Maceió / AL, 2011.

Clinical Characteristics of Uv		UV Treatment Time						p-value
		Up to 1 year		> 1 year		Total		
		n	%	n	%	n	%	
Ulcer length	> 6 months	4	6,8	34	57,6	38	64,4	0,001
	up to 6 months	14	23,7	7	11,9	21	35,6	
Pain in ulcer/member	Features	18	30,5	33	55,9	51	86,4	0,043
	Absent	0	0,0	8	13,6	8	13,6	
Perilesional skin	Modified	16	27,1	37	62,7	53	89,8	0,601
	Integrity	2	3,4	4	6,8	6	10,2	
Edge status	High	9	15,3	22	37,3	31	52,5	0,796
	Thin	9	15,3	19	32,2	28	47,5	
Ulcer tissue (granulation / epithelial)	≤ 30%	13	22,0	33	55,9	46	78,0	0,481
	> 70%	5	8,5	8	13,6	13	22,0	
Amount of exudate	Medium / Large	6	10,2	13	22,0	19	32,2	0,902
	Small	12	20,3	28	47,5	40	67,8	
Ulcer area	Medium / Large	0	0,0	9	15,3	9	15,3	0,031
	Small	18	30,5	32	54,2	50	84,7	
Infection	Features	8	13,6	8	13,6	16	27,1	0,047
	Absent	10	16,9	33	55,9	43	72,9	
UV Position	Zone 2*	14	23,7	31	52,5	45	76,3	0,850
	Zone 1 and 3**	4	6,8	10	16,9	14	23,7	
Recurrent	Yes	7	11,9	40	67,8	47	79,7	0,001
	No	11	18,6	1	1,7	12	20,3	
Total		18	30,5	41	69,5	59	100,0	

* Distal third of the leg / ankle. ** Foot and proximal third of the leg.

Regarding the characteristics of care in relation to treatment time, Table 2 highlights the inadequacy of the products

used in the last 30 days in 83.1%, which was statistically significant (p-value = 0.036).

Table 2. Characterization of care for people with venous ulcers and analysis under UV treatment time. Maceió / AL, 2011.

Characteristics of assistance		UV Treatment Time						p-value
		Up to 1 ano		> 1 ano		Total		
		n	%	n	%	n	%	
General / Specific Examinations	Inappropriate	18	30,5	39	66,1	57	96,6	0,340
	Appropriate	0	0,0	2	3,4	2	3,4	
Infection X biopsy / culture / swab	Inappropriate	7	11,9	7	11,9	14	23,7	0,070
	Appropriate	11	18,6	34	57,6	45	76,3	
Products used in the past 30 days	Inappropriate	12	20,3	37	62,7	49	83,1	0,036
	Appropriate	6	10,2	4	6,8	10	16,9	
Compressive treatment	Inappropriate	7	11,9	24	40,7	31	52,5	0,164
	Appropriate	11	18,6	17	28,8	28	47,5	
Guidance exercises / lifting MMII	Inappropriate	8	13,6	14	23,7	22	37,3	0,451
	Appropriate	10	16,9	27	45,8	37	62,7	
Guidance to the use of compressive stockings	Inappropriate	11	18,6	20	33,9	31	52,5	0,382
	Appropriate	7	11,9	21	35,6	28	47,5	
Appointment with the angiologist	Inappropriate	13	22,0	20	33,9	33	55,9	0,095
	Appropriate	5	8,5	21	35,6	26	44,1	
Place of dressing over the past 30 days	Inappropriate	12	20,3	26	44,1	38	64,4	0,810
	Appropriate	6	10,2	15	25,4	21	35,6	
Professional who may accompany/perform curative	Inappropriate	7	11,9	20	33,9	27	45,8	0,483
	Appropriate	11	18,6	21	35,6	32	54,2	
Availability of products	Inappropriate	12	20,3	33	55,9	45	76,3	0,251
	Appropriate	6	10,2	8	13,6	14	23,7	
Total		18	30,5	41	69,5	59	100,0	

Other aspects, despite not showing statistical significance, may help to increase the time of injury and treatment, which indicates chronicity of UV, such as inadequacy of: general/ specific examinations (96.6%), product availability (76.3%), Place of dressing over the past 30 days (64.4%), Appointment with the angiologist (55.9%), compressive treatment (52.5%) and guidance for the use of compression stockings (52.5%).

Regarding the positive clinical aspects (Figure 1) which may promote tissue healing, the UV up to six months had more of these aspects compared to lesions of over 6 months. This comparison achieved statistical significance by applying the Mann-Whitney = 0.014, suggesting that the older UV have unfavorable clinical scarring, increasing the time of restoration and contributing to chronicity.

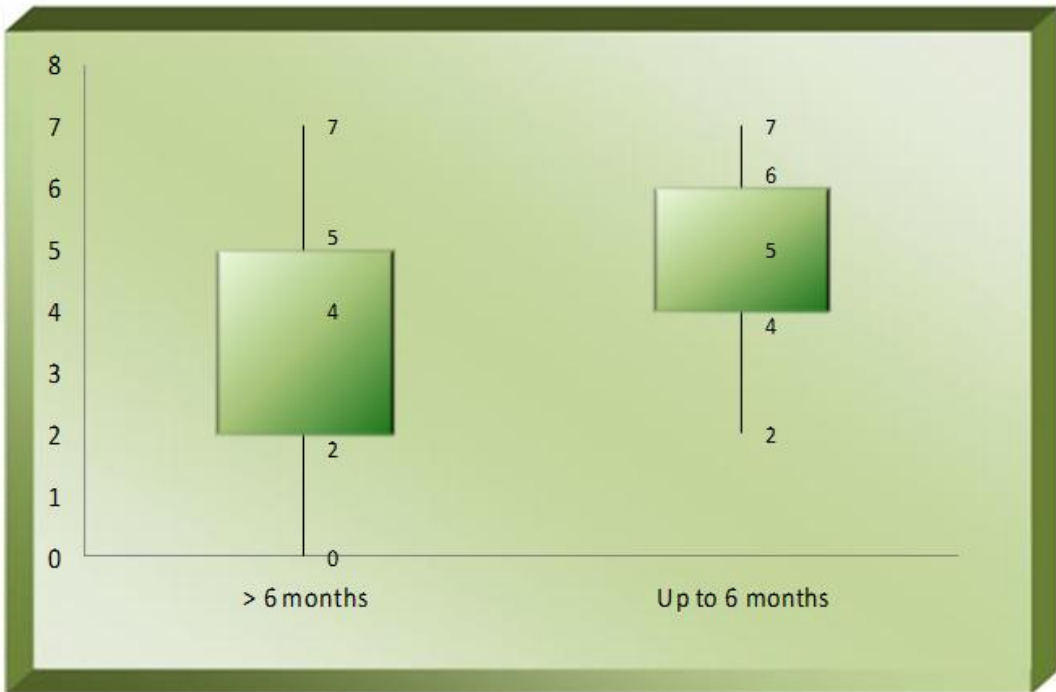


Figure 1. Positive clinical aspects according to UV length. Maceió / AL, 2011.

By analyzing positive care aspects with respect to time of UV (Figure 2), it is evident that the UV of more than six months length

had more of such aspects as compared to lesions with fewer than six months length. This comparison may suggest that older ulcers

were demanding more attention and better assistance by 12 professionals and health services. However, the relationship did not show statistically significant differences when applying the Mann-Whitney = 0.114.



Figure 2. Positive assistance aspects according to UV time length. Maceió / AL, 2011.

When comparing the positive clinical, care and clinical/assistance aspects with time of UV (Table 3), we note that the positive clinical aspects (> than 4) are more present in people with lesions up to 6 months of treatment (22 , 0%), on the other hand, people who had chronic ulcer had only up to 4 positive clinical aspects, statistically significant (p-value = 0.014).

On the positive aspects side, rates of assistance up to four positive aspects (32.2%) and between 5 to 7 aspects (32.2%) were higher in people with lesions> 6 months. And by associating the positive clinical/assistance aspects, the UV> 6 months showed less positive aspects(35.6%).

Table 3. Clinical and assistance aspects of venous ulcers according to time length of UV. Maceió / AL, 2011.

Positive clinical and assistance UV aspects		UV treatment time						p-value
		> 6 months		Up to 6 months		Total		
		n	%	n	%	n	%	
Clinical	Up to 4	27	45,8	8	13,6	35	59,3	0,014
	> 4	11	18,6	13	22,0	24	40,7	
Assistential	Up to 4	19	32,2	15	25,4	34	57,6	0,111
	from 5 to 7	19	32,2	6	10,2	25	42,4	
Clinical and assistential	Up to 8	21	35,6	7	11,9	28	47,5	0,106
	> 8	17	28,8	14	23,7	31	52,5	
Total		38	64,4	21	35,6	59	100,0	

DISCUSSION

Regarding the existence of the injury length, studies have shown similar data with percentages between 65.0% and 75.0% for UV over 6 months and in this study it was observed that in 64.4% of survey participants, the existence time of the lesion was greater than 6 months. Accordingly, it can be inferred that this aspect makes it difficult to tissue healing, prolonging the treatment time of the

injury, and may contribute to chronic ulcers.⁷⁻⁸

Surveys showed a percentage ranging from 66.6% to 86.5% with respect to pain or ulcer in the member and in this study we found that the pain in the limb or ulcer was present in 86.4% of respondents⁷⁻⁸. It is understood that the UV is quite painful, being worse at night, causing restriction in the mobility of the lower limbs affected, disrupting sleep and being described by many patients as the factor with the greatest impact on their quality of life⁹.

Authors also demonstrate the importance of describing lesions characteristics such as: depth, shape, edge, fabric used in bed, exudate and area measurements of UV during treatment. These aspects are relevant and are usually unfavorable. According to the data obtained in this study, we can highlight: perilesional skin changes (62.7%) and tissue ulcer ≤ 30 (55.9%).⁷⁻⁸

Lesions can be characterized as irregular, painful, varying degrees, with well-defined edges, with bed hardly showing any necrotic tissue commonly with serous exudate.¹⁰

Typically, UV appear with absence of infection, as the data found in this study show (72.9%). In other experiments, we found that infection in the absence of UV was between 67.6% and 72.5%.⁷⁻⁸

Some authors confirm that the location of the lesion is concentrated in Zone 2, which corresponds to the malleolus region and the distal half of the leg and in this research the location of UV Zone 2 was observed in 76.3% of respondents.¹⁰⁻¹ Researchers also agree when they refer to the high number of patients with recurrent lesions, which is one of the most important problems in assisting the individual with UV and in this study we found that in 79.7% of participants the lesion was relapse, thus confirming the findings in the literature.¹⁰⁻¹ Authors show that one of the main reasons for relapse is the lack of commitment and patient compliance in relation to preventive measures, such as the use of compression stockings and rest, considered essential to the process of health education as measures to strengthen the always necessary guidelines.⁷

Research shows that care characteristics, and specific laboratory tests were absent.⁷⁻⁸ In this research, we observed that 96.6% of respondents had no specific and appropriate laboratory tests, confirming the data from the scientific literature. However, another paper shows the importance of research laboratories, with examinations such as: blood count, hemoglobin, leukocytes, platelets, biochemical (cholesterol and triglycerides), fasting glucose, protein measurements (total and fractions) and albumin levels and transferrin, after detailed history and physical examination to confirm or rule out problems related to scarring. This collaborates to define the diagnosis of UV, which is mainly clinical and must be given from the complete medical history, through physical examination, injury assessment and examinations, including: culture exudate, the index measuring Ankle

Brachial-(ITB), echo-color Doppler, venography and plethysmography.³

The swab secretion culture should be requested when there are signs of infection, guiding the prescription of antibiotics.¹² However, other studies suggest that when there are signs of infection swabs are no longer listed as bacteriological examination since they only identify bacteria and contaminants colonizing. Thus, to identify the bacteria and direct treatment it is indicated the base of the ulcer biopsy and tissue culture. Skin biopsy is a test helper, which should be suggested when the ulcer has existed for more than four months or display tissue hypertrophy.^{3,13}

In this study, there was adequacy in 73.6% of cases surveyed regarding infection and culture/swab or biopsy. However, in scientific literature, swab culture secretion was performed adequately in less than 20.0% of the patients surveyed, contrasting with the data obtained in this study.⁷⁻⁸

We identified an inadequacy of product in this study (83.1%). Other studies show similar data and emphasize that it is essential to adopt appropriate methods and products to clean the lesion as well as the use of non-compliant roofing, which are able to provide a moist environment and to absorb exudate, creating an environment conducive to healing.^{7,14}

The inadequacy of compression therapy (52.5%) observed in this study substantially contributes to the chronicity of the lesions. National and international studies on care with UV are consensual in the indication of compression therapy for the treatment and prevention of venous lesions. Most studies show a significant increase in the number of healed lesions, as well as considerable reduction in healing time in patients who used compression therapy, compared with those who did not use this therapy.¹³⁻⁵

Some authors suggest relapse rates of 33.0% per year and 100.0% in three years without the use of compression therapy and highlight that 100.0% of the patients who used UV Unna boot had positive evolution of their injuries.¹⁴

With regard to guidance on exercises, lifting limbs and compression therapy, the scientific literature shows that, for the successful treatment of injuries, stimulating self-care through guidance and training is essential, although this study show deficiency in these guidelines.^{3,12} Authors recommend that in addition to medical treatment it is necessary to: use educational strategies, such

as encouraging mobility, exercises and limb elevation.⁵

Regarding inappropriate access to angiologist, a study shows that 87.5% of customers surveyed did not have adequate number of appointments with this professional, which shows inadequate assistance.⁸ It was also found in literature that there was no appointment with the angiologist in 63.5% of respondents.⁷ It was observed in this study that 55.9% of individuals involved in the research had inadequate access to angiologist, which is in accordance with the data collected in the scientific literature.

Regarding the professional who performed the dressing changes, researchers demonstrate the absence of involvement of the doctor and a nurse to monitor the injury, contributing to poor care.¹⁴ In this research we analyzed that in 54.2% of investigated cases the performance of the professionals involved in the exchange of healing was adequate, contradicting the findings of some authors.

When there is lack of availability of products through SUS and patients need to buy these materials, this represents a considerable burden on the family income of users, which is, according to this study, up to two minimum wages.⁸

Authors highlight the importance of clinical characteristics of the lesions, as the appearance of the bed and perilesional skin and aspects of professional care which performs the technique of bandage, professional assessment, among other factors.¹⁶

Furthermore, literature states that the assessment of lesion should include: analysis of the presence of pain or local hypersensitivity, edema, erythema, warmth, smell, shedding, and fibrin exudation, or clinical factors that should be considered when systematizing assistance being provided people with injuries, especially with UV.¹⁷

CONCLUSION

Clinical aspects that contributed to the increased duration of assistance to people attended by the Family Health Strategy Maceió-Alagoas were mainly UV time greater than 6 months, pain in UV and limb and relapse UV. These characteristics make it difficult to the process of tissue healing, prolonging treatment of lesions and may contribute to the chronicity of ulcers.

Regarding the characteristics of assistance, we highlight the inadequacy of: products over

the past 30 days, general/specific examinations, compressive treatment, guidance for the use of compression stockings, access to appointments with the angiologist, venue of the dressing for 30 days and product availability.

When comparing the clinical/assistance positive aspects with time of injury, positive clinical aspects are more present in the lesions with up to six months of treatment. These factors negatively influence inadequate wound healing, and can result in greater chronicity of UV.

These research findings denote the need to rethink the current assistance strategy developed at the Family Health of the city of Maceió, Alagoas, as well as the urgency of the discussion, creation and implementation of protocol assistance in order to systematize the care people with ulcers venous are being given, seeking a better evolution of these lesions and improving the quality of life of these people.

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