ORIGINAL ARTICLE

DOI: 10.30886/estima.v16.346

Characterization of patients with venous ulcer assisted in a public hospital stomatherapy clinic

Caracterização de pacientes com úlcera venosa assistidos em ambulatório de estomaterapia de hospital público

Caracterización de pacientes con úlcera venosa asistidos en ambulatorio de estomaterapia de hospital público

Anne Kayline Soares Teixeira[1], Lúcia de Fátima da Silva[1], Antônio Dean Barbosa Marques[1], Camilo Reuber de Sousa Soares[2]

ORCID IDs

Teixeira AKS https://orcid.org/0000-0002-7751-0047
Silva LF https:// orcid.org/0000-0002-3217-3681
Marques ADB https://orcid.org/0000-0001-8969-1546
Soares CRS https://orcid.org/0000-0003-1183-2489

HOW TO CITE

Teixeira AKS; Silva LF; Marques ADB; Soares CRS. Characterization of patients with venous ulcer assisted in a public hospital stomatherapy clinic. ESTIMA, Braz. J. Enterostomal Ther., 16: e0318. doi: 10.30886/estima.v16.346.

ABSTRACT

Objective: To evaluate the profile of patients with venous ulcer in ambulatory care. **Method:** Retrospective study performed in a stomatherapy clinic of a general hospital. Data were obtained from the care records of the period between October 2014 and March 2015. **Results:** It was observed a predominance of women (68.2%), age group over 60 years (51.2%) and domicile in Fortaleza/CE (63.4%). Single ulcers (58.5%) and unilateral ulcers (75.6%) were the most frequent. The principal comorbidities found were systemic arterial hypertension (39%) and diabetes *mellitus* (30%). The treatment was clinical in 82.9% of the cases, with a higher adhesion to compressive therapy (60.9%) and with the use of dressings containing essential fatty acids (38.7%) and hydrogel (32.2%). Regarding the outcome, the continuity of outpatient treatment predominated (56%). **Conclusion:** The results of the study are considerable and it is important others searches in the area, besides helping to plan nursing care for these patients.

DESCRIPTORS: Varicose ulcer; Health profile; Nursing; Stomatherapy.

[1]Universidade Estadual do Ceará – Centro de Ciências da Saúde – Programa de Pós-Graduação Cuidados Clínicos em Enfermagem e Saúde – Fortaleza/CE – Brazil.
[2]Universidade Estadual do Ceará – Centro de Ciências da Saúde – Programa de Pós-Graduação em Ciências Fisiológicas – Fortaleza/CE – Brazil.

Corresponding author: Anne Kayline Soares Teixeira | Universidade Estadual do Ceará – Centro de Ciências da Saúde – Programa de Pós-Graduação Cuidados Clínicos em Enfermagem e Saúde | Avenida Doutor Silas Munguba, 1.700 – *Campus* do Itaperi | ZIP Code: 60714-242 – Fortaleza/CE – Brazil | E-mail: kaylinesoares@hotmail.com

Received: Apr. 21 2016 | Accepted: Dec.13 2016

RESUMO

Objetivo: Avaliar o perfil de pacientes com úlcera venosa em atendimento ambulatorial. **Método:** Estudo retrospectivo realizado em um ambulatório de estomaterapia de um hospital geral. Os dados foram obtidos nos registros de atendimento do período entre outubro de 2014 e março de 2015. **Resultados:** Observou-se predominância do sexo feminino (68,2%), faixa etária acima de 60 anos (51,2%) e residência em Fortaleza/CE (63,4%). As úlceras únicas (58,5%) e unilaterais (75,6%) foram as mais frequentes. As principais comorbidades encontradas foram hipertensão arterial sistêmica (39%) e diabetes *mellitus* (30%). O tratamento foi clínico em 82,9% dos casos, com maior adesão à terapia compressiva (60,9%) e com utilização de curativos contendo ácidos graxos essenciais (38,7%) e hidrogel (32,2%). Quanto ao desfecho, predominou a continuidade do tratamento ambulatorial (56%). **Conclusão:** Os resultados do estudo mostram-se relevantes e ressalta-se a importância de outras pesquisas na área, além de esses ajudarem no planejamento do cuidado de enfermagem a esses pacientes.

DESCRITORES: Úlcera varicosa; Perfil de saúde; Enfermagem; Estomaterapia.

RESUMEN

Objetivo: Evaluar el perfil de pacientes con úlcera venosa en atención ambulatoria. **Método:** Estudio retrospectivo realizado en un ambulatorio de estomaterapia de un hospital general. Los datos fueron obtenidos en los registros de atención del período entre octubre de 2014 y marzo de 2015. **Resultados:** Se observó predominio del sexo femenino (68,2 %), rango de edad arriba de los 60 años (51,2 %) y residencia en Fortaleza/CE (63,4 %). Las úlceras únicas (58,5 %) y unilaterales (75,6 %) fueron las más frecuentes. Las principales enfermedades encontradas fueron hipertensión arterial sistémica (39 %) y diabetes *mellitus* (30 %). El tratamiento fue clínico en 82,9 % de los casos, con mayor adhesión a la terapia compresiva (60,9 %) y con uso de curativos conteniendo ácidos grasos esenciales (38,7 %) e hidrogel (32,2 %). En cuanto al resultado, predominó la continuidad del tratamiento ambulatorio (56 %). **Conclusión**: Los resultados del estudio se muestran importantes y se resalta la importancia de otras investigaciones en el área, además que estas ayudan a la planificación del cuidado de enfermería a estos pacientes.

DESCRIPTORES: Úlcera varicosa; Perfil de salud; Enfermería; Estomaterapia.

INTRODUCTION

Regarding the ulcers found in the lower limbs, the wound of venous etiology is the most prevalent, corresponding to approximately 80% to 90% of these lesions. The wound originates from venous hypertension caused by chronic insufficiency of vessels, defined as an abnormality of the functioning of the venous system, in turn resulting from valvular incompetence, associated or not with obstruction of the venous flow[1].

Physiologically, the venous system is a set of small vessels, which are integrated in other increasingly large, whose function is to return the blood and lead it back to the heart[2]. Chronic venous insufficiency (CVI) can affect the superficial venous system, the deep venous system or both[3]. These changes in the veins cause problematic situations because the venous system is considered a fundamental element for the functioning of the organism, representing a reservoir containing more than 70% of the blood in the circulation.

CVI is a disease commonly found in clinical practice, whose main complication is venous ulcer, which causes significant morbidity, in addition to early retirement due to disability, restriction to daily and leisure activities, pain, loss of functional mobility and worsened quality of life. It is fundamental to recognize the risk factors for the development of the disease in order to manage them and thus prevent their recurrence[4].

Venous dysfunction may be the result of a congenital or acquired disorder[3]. Among the risk factors considered are obesity, advanced age, lifestyle, work, diet, hormone use, pregnancy, previous leg injuries, deep venous thrombosis and phlebitis[5]. Professions such as nurses, sellers and teachers are considered at risk for developing venous hypertension and associated varicose vein, because they remain for long standing periods.

This chronic disease affects up to 50% of the adult population and it is estimated that 1% of individuals will suffer from venous leg ulceration during their lifetime. Although it affects young people, due to the increase in life expectancy, there are more elderly people affected. The prevalence is 0.10% to 0.30% and the incidence is 3 to 5 new cases/1000 people per year, with leg ulcer occurring twice more in people over 65 years of age[6].

The incidence is 5.9% in industrialized countries. In the United States of America, more than 7 million people are affected by this disease[7].

About the diagnosis of venous insufficiency, it is eminently clinical, through anamnesis, physical examination and complementary exams, such as venous Doppler. In the inspection of the lower limbs, visible changes of the disease are found: varicose veins, edema, cellulitis or erysipelas crises and trophic disorders such as hyperpigmentation, dermatitis, stasis eczema, lipodermatosclerosis and phlebectasic crown.

Although CVI has almost no mortality, the alterations resulting from the disease interfere with the daily life and body image of patients affected, especially those with active leg ulcer.

In this context, it is considered that the scarcity of statistical data regarding the prevalence of this type of ulcer in different regions of the country, as well as the financial, psychological and social impact of the person in facing the chronic venous disease, emphasizes the importance of studies that address the clinical and epidemiological profile of patients affected, to generate information and knowledge about the reality of this disease[8,9].

Thus, studies in this area can contribute to improve nursing care and reduce institutional expenses, as well as improve the quality of life of these patients.

OBJECTIVES

The purpose of this study was to characterize patients with CVI and chronic venous ulcer attended at a public hospital in the stomatherapy outpatient clinic.

METHODS

Retrospective study of a quantitative nature. The search was carried out in a general hospital within the health network of Fortaleza/CE. It is an institution that began operating in December 2002 and aids patients referenced by tertiary hospitals through the bed centers of the County of Fortaleza and the State of Ceara.

The institution offers 336 beds, distributed in medical clinics, special care unit, surgical clinic, pediatrics, nursery of medium risk and intensive care units for adults, newborns and children. It also offers outpatient and home care programs, as well as special programs with interdisciplinary teams for patients with chronic diseases such as venous insufficiency, diabetes mellitus (DM) and encephalic vascular accident.

The data obtained in this investigation took place - from October 2014 to March 2015 - by consulting the care records given by stomatotherapist nurses, a virtual disk service worksheet and by searching electronic medical records. The following inclusion criteria were adopted: records of patients with medical diagnosis of CVI and venous ulcer aged over 18 years and being followed up at the outpatient clinic during the data collection period. Patients, who had ulcers of another lower limb etiology, such as neuropathic, pressure or mixed (arterial and venous) etiologies, were excluded.

Forty-one patients were included in the study, and variables related to gender, age, number of venous ulcers and laterality, presence of comorbidities, types of treatment (surgical or clinical), topical and compressive therapy used, and outcome were sought. Data were refined, tabulated, statistically analyzed and presented in figures and tables.

The statistical program SPSS, version 20.0 was used, and chi-square tests were performed with uni and multivariate analyzes. Logistic regression was also performed with the variable that presented significance in the univariate analysis, given the number of ulcers in the lower limbs.

Ethical and legal aspects have been considered. The search followed the determinations of Resolution of the National Health Council n. 466 of December 12, 2012, related to the precepts of search ethics involving human beings. The search is part of project approved under position paper n.984427.

RESULTS

Regarding gender, the predominance of women was observed, with 68.29% of the cases. With respect to the age

group, the mean age was 63.3 ± 10.6 years, with a higher prevalence of individuals in middle age (40 to 65 years), with 51.21% of the cases, followed by individuals over 60 years (65 to 80 years), with 39.02%. In relation to the place of domicile, the majority residing in Fortaleza/CE (63.41%), while the smallest part residing in the metropolitan region or in the countryside of the state of Ceara.

About the number of ulcers present, it was observed a predominance of single ulcers (58.53%), as well as their unilaterality (75.60%). In terms of the treatment, it was revealed that the majority option was by clinical treatment (82.92%) and that, in these, there was the largest adhesion by compressive therapy (60.97%), composed by elastic band or boot of Unna.

Regarding the outcome of the patients, continuity of treatment was observed as predominant in the study (56.09%), followed by outpatient discharge (24.31%). The sum of the number of patients requiring hospital stay in the period or who dropped out of treatment was less than 20%.

In relation to the time of follow-up, it was observed that the majority (56.09%) remained in treatment for more than three years, followed by those who were treated two or three years ago (24.39%), while 19.52% less than two years.

It is observed in Fig.1 that the use of essential fatty acids (EFA) and hydrogel, with occurrences of 38.70% and 32.25%, respectively, predominated as topical therapy.

Systemic arterial hypertension (SAH) and DM, as shown in Fig. 2, were observed as comorbidities (63.41%), observed in 39% and 30% of the patients, respectively.

After tabulation of the data, they were grouped and analyzed in a univariate and multivariate manner for statistical treatment, being presented in Tables 1 and 2. It was observed that there was no relation between the variables gender, place of domicile and laterality and the outpatient discharge of the patients, since all p values in these analyzes were bigger than 0.05.

The presence of a single ulcer was independent risk factor for discharge (p = 0.028, odds ratio [OR] = 9.6 and 95% confidence interval [CI] = 1.08 - 85.16), i.e. patients who had single venous ulcer were more likely to be ambulatory than those with multiple ulcers.

It was seen that there is no statistical relationship between the variables comorbidities, surgical treatment and compressive, topical or combined therapies and the outpatient discharge of the patients. Therefore, the number of venous ulcers was configured as the only variable that interferes with patients' discharge, giving

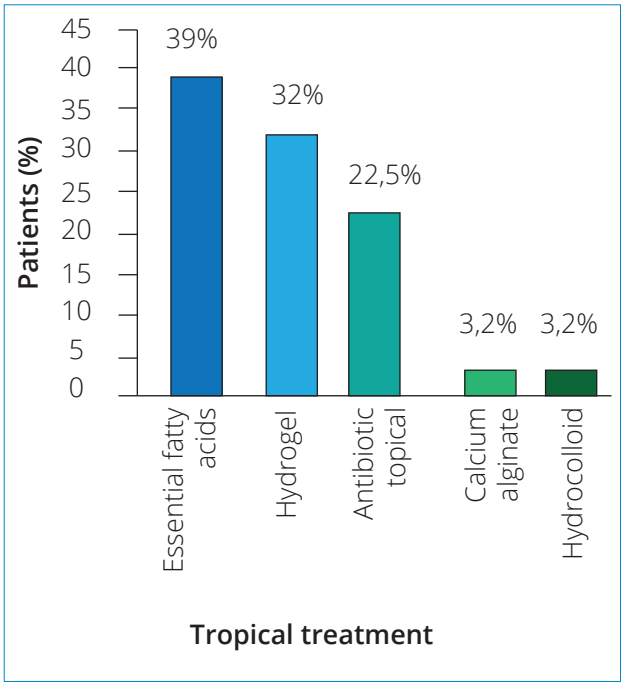

Figure 1. Topical treatment used by patients with venous ulcer. Stomatherapy clinic in general hospital. Fortaleza, Ceará, Brazil, 2015.

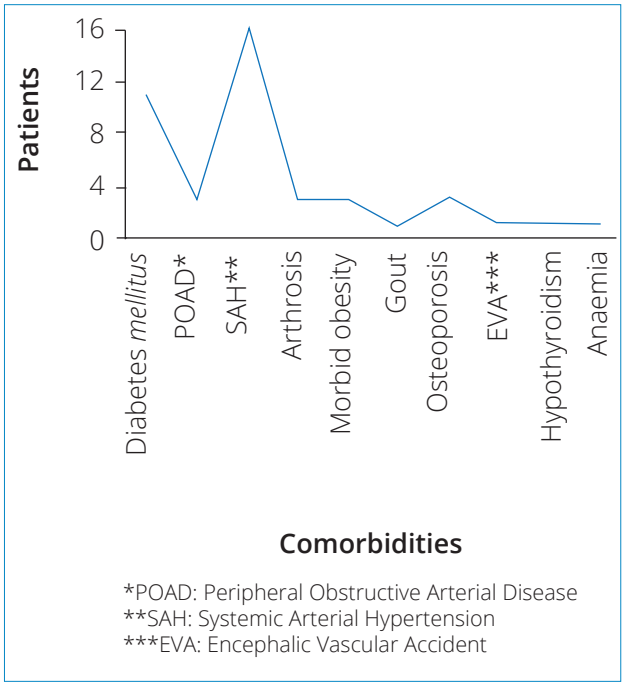

Figure 2. Comorbidities presented by patients with venous ulcer. Stomatherapy clinic in general hospital. Fortaleza, Ceará, Brazil, 2015.

Table 1. Variables analyzed in patients with venous ulcer (multivariate analysis - gender, number of venous ulcers, laterality and domicile). Stomatherapy clinic in general hospital. Fortaleza, Ceará, Brazil, 2015.

Variables	Discharge (N = 10)	Not discharge (N = 31)	p
Gender			
Male	2 (20%)	10 (32.2%)	0.694
Female	8 (80%)	21 (67.7%)	
Ulcers amount			
Single	9 (90%)	15 (48.4%)	0.028
Multiples	1 (10%)	16 (51.6%)	
Laterality			
Unilateral	9 (90%)	22 (71%)	0.402
Bilateral	1 (10%)	9 (29%)	
Domicile			
Fortaleza	6 (60%)	22 (71%)	0.698
Countryside	4 (40%)	9 (29%)	

Chi-square test

Table 2. Variables analyzed in patients with venous ulcer (multivariate analysis - comorbidity, surgical treatment and topical, compressive or combined therapy). Stomatherapy clinic in general hospital. Fortaleza, Ceará, Brazil, 2015.

Variables	Discharge (N = 10)	Not discharge (N = 31)	p
Comorbidity	7 (70%)	16 (51.6%)	0.467
Surgical treatment	2 (20%)	5 (16.1%)	1.000
Compressive therapy	1 (10%)	9 (29%)	0.402
Topical therapy	6 (60%)	10 (32.2%)	0.150
Combined therapy	3 (30%)	12 (38.7%)	0.720

Chi-square test

those who have single ulcers a bigger chance of being discharged from treatment.

DISCUSSION

About gender, corroborating with the findings, it is highlighted a higher occurrence in women to develop venous ulcers. The high proportion for women in developing venous ulcer is 4:3[10]. A search conducted in a university hospital in a capital city of the Brazilian Northeast showed a higher prevalence of these ulcers in women (88.9%)[11].

Regarding the age group, there is diversification in the studies. It is important to note that the Northeast region has high incidence of people up to 59 years of age (62.5%). Advanced age is considered a risk factor for CVI development[5]. This fact is due to physiological changes in the aging process, together with changes in the venous network, changes in the dispensability of veins and muscle tone, and nutritional, metabolic and immunological modifications that make the elderly persons more susceptible to develop lesions such as chronic[12].

In this investigation, there was a predominance of patients coming from the capital, possibly because of the difficulties of diagnosis, access and displacement faced by patients from the countryside of the State. It can be inferred that this factor associated with working conditions, income, understanding of the disease and health care, as well as the lack of economic planning,

make access difficult to treatment and favor the chronicity of the affection[13].

Venous ulcers may present as single or multiple, unilateral or bilaterally and with varying shapes and sizes, being predominantly located in the lower third of the leg, in regions of medial or lateral malleolus. There is an intrinsic relationship between the size of the ulcer and healing time. The longer the size of the ulcer, the longer the healing time[8].

Regarding the location of venous ulcers, a search showed that most of the lesions studied (68.6%) occurred in the lower leg, with 31.4% in the malleolus[14].

Once the disease is diagnosed, after a careful evaluation of specialists such as the vascular doctor, the treatment will be conducted clinically or surgically. A study carried out in Portugal showed that 53% of the patients with ulcers of venous etiology were treated by surgery and 47% by compressive treatment. It revealed that surgeries were performed essentially in cases of isolated superficial venous insufficiency (53.1%)[8]. Surgical treatment, such as radical saphenectomy in patients with alterations in this vein, has an increasingly limited indication, considering its importance as a vascular substitute for several beds of the circulatory system[15].

Clinical treatment for success requires changes and adaptations in the patient's lifestyle. The ideal, therefore, is that the follow-up should be performed by a medical specialist (vascular surgeon) and a nurse (stomaterapist).

The stomaterapist nurse works in the care of patients with ulcers of venous origin in the scope of prevention and treatment. There are some clinical skills in this area: to perform a nursing consultation, using an evaluation tool that allows the obtaining of subsidies for the implementation of nursing care systematization in stomatherapy; take an ankle-arm index with use of peripheral vascular Doppler; prescribe skin care in general and other measures to preserve skin integrity; advise on nutrition and hydration and, when applicable, request a nutritionist's evaluation; guidance on exercises to strengthen the leg muscles, alternating rest, elevation of lower limbs, lymphatic drainage and compressive measures; request biochemical, hematological, wound culture and other examinations when necessary; perform debridement with conservative instruments; prescribe topical therapy, Unna boot or compression therapy; and advise the staff, the patient and the family about the proposed care[16].

Due to the fact that the treatment of venous ulcers is a challenge faced by health professionals working in this area, it is necessary to carry out specialization courses in wound treatment, as a way to achieve more knowledge and ability to assist the patients with venous ulcer[1].

In view of the above, and due to high relapse rates, it is important to consider that venous ulcer healing is not an easy task, even for specialists in the area. It requires the patient's psychological conditions, family support and knowledge about its illness, so it can follow the guidelines of rest, dressing and compressive therapy, and lack good financial conditions, since the acquisition of materials for topical therapy has a high cost[17].

The clinical treatment of venous ulcer should be supported in four ways: treatment of venous stasis, using rest and compressive therapy; topical therapy with a choice of local coverage that keeps the wound bed moist and clean and capable of absorbing the exudate; control of infection with systemic antibiotic therapy, when necessary; and prevention of relapses[7].

Among the recommended clinical treatments, compressive therapy is effective in the treatment of venous ulcer, since it decreases the chronic venous hypertension responsible for the onset, maintenance and recurrence of the lesion. Compression therapy favors wound healing, as well as reducing the signs and symptoms present in the affected lower limb[18].

Compression therapy increases the rate of healing of venous ulcers. The Unna boot should not be wet and the leg should be protected when bathing. The boot of Unna is considered primary dressing and may be secondary (depending on the type of wound), because it is in direct contact with the wound and will remain for seven days, can be removed before, if it smells or the patient refers to fever and pain[19].

For odor prevention, it is recommended that the patient renew daily the secondary dressing[20]. Guidance on the use of the boot is paramount since this is a high cost effective therapy for the treatment of venous ulcer. A search showed an estimated total direct cost of R$ 107.99 for each day care with application of the Unna boot[21].

Associated with compressive therapy, topical treatment is essential for the healing of venous ulcer.

For this purpose, the market offers a wide variety of coverings, which for venous ulcer should be able to absorb excess exudate from the surface of the wound, providing a healthy moist environment, should be free of contaminants, reduce ulcer pain, be easy non-adherent, do not cause allergic reaction, act as a semipermeable membrane and be impermeable to microorganisms, in addition to providing a thermal environment[7].

The indication of dressing, therefore, will depend on sequential evaluations at times of exchange. Assessments of wound bed characteristics such as exudate intensity, colonization, infection, odor, adjacent tissues and skin, as well as financial or institutional conditions are considered at the time of product indication[22].

A study showed that 53.8% of the ulcers had a corresponding evolution time of up to five years, 26.9% had five to ten years and 19.4% presented more than ten years of evolution [23]. The time of living with the venous ulcer negatively impacts the patient's outcome, and may be related to treatment abandonment, long periods of outpatient follow-up, and hospital stays due to complications such as infections related to venous ulcers.

In an investigation[24], the mean time of the existence of the venous ulcer in the interviewees was 11.3 years. The authors also stated that the delay in wound healing can often be associated with pre-existing conditions such as hypertension, diabetes, inadequate nutritional status, immunodeficiency or infection.

Thus, in addition to coping with chronic venous disease and venous ulcer, some patients have other morbidities associated with the disease, which directly affect their self-care. The literature shows a strong association of CVI patients with other diseases, such as hypertension and/or DM. A search[14] conducted in a wound care outpatient clinic of a university hospital in a capital of Southeast Brazil showed a predominance of the presence of CVI + SAH, which was detected in 31% of the patients, and the presence of CVI + DM + HAS in 22%. It is known that SAH and DM interfere in the wound healing process, since there is alteration in the circulation and perfusion of the wound, as well as predisposition to infections[23].

It is relevant to share information that addresses characteristics of patients with CVI and active venous ulcer. And, thus, to know the reality of institutions that offer care and support, aiming that health professionals and managers are sensitive to the context of this disease, starting to create public policies for health promotion and disease prevention in this perspective.

CONCLUSION

Regarding the characterization of the participants, a large majority (68.2%) were women, with a mean age of 63.3 years and a higher prevalence of individuals between 40 and 65 years of age and of Fortaleza/CE (63.4%). About the number of ulcers present, a predominance of single ulcers (58.5%) was observed, as well as their unilaterality (75.6%). The clinical treatment (82.9%) was predominant, with emphasis on compression therapy (60.9%), composed of elastic band or Unna boot; the EFA coverage was the most used (38.7%). About the follow-up time, the majority (56.0%) had been receiving treatment for more than three years. SAH and DM were the most prevalent comorbidities, accounting for 63.41% of the cases.

The knowledge of the profile of patients with chronic venous ulcer disease and venous ulcer in specialized outpatient clinics allows the development of strategies to improve care and systematized and individualized therapies, as well as to assist in clinical judgment and in determining the specific care plan for coping with the disease and not underestimation of the problem.

It is hoped that the findings of this search may contribute to the scientific community. It is important to emphasize the necessity to carry out new studies in the area involving nursing and multiprofessional care to this clientele is emphasized, mainly with methodological designs with a higher level of evidence.

AUTHOR'S CONTRIBUTION

Conceptualization, Teixeira AKS and Silva LFS; Methodology, Teixeira AKS; Silva LFS; Marques DBM and Soares CRS; Writing – First edition, Teixeira AKS e Silva LFS; Writing – Revision & Edition, Teixeira AKS and Marques DBM.

REFERENCES

1. Barbosa GJA, Campos NLM. Directrices para el tratamiento de úlcera venosa. Enferm Global. 2010;9(3):1-13. doi: 10.4321/s1695-61412010000300022.
2. Salgado HC, Fazan Júnior R, Silva VJD. As veias e o retorno venoso. In: Aires MM. Fisiologia. Rio de Janeiro: Guanabara Koogan; 2013.
3. Fiebig A, Krusche P, Wolf A, Krawczak M, Timm B, Nikolaus S, et al. Heritability of chronic venous disease. Hum Genet. 2010;127(6):669-74. doi: 10.1007/s00439-010-0812-9.
4. Tonazio CHS, Silva RA. O manejo da úlcera venosa. In: Malagutti W. Feridas conceitos e atualidade. São Paulo: Martinari; 2015.
5. Collins L, Seraj S. Diagnosis and treatment of venous ulcers. Am Fam Physician. 2010;81(8):989-96.
6. Vowden K, Vowden P. How to guide: effectivecompression therapy. Wound Essentials. 2012;7(2):1-4.
7. Borges EL, Caliri MHL. Insuficiência venosa crônica. In: Borges EL. Feridas: úlceras dos membros inferiores. Rio de Janeiro: Guanabara Koogan; 2011.
8. Afonso A, Barroso P, Marques G, Gonçalves A, Gonzalez A, Duarte N, et al. Úlcera crônica do membro inferior – experiência com cinquenta doentes. Angiol Cir Vasc. 2013;9(4):148-53. doi: 10.1016/s1646-706x(13)70035-1.
9. Oliveira SB, Soares DA, Pires PS. Prevalência de úlceras venosas e fatores associados entre adultos de um centro de saúde de Vitória da Conquista – BA. Rev Pesqui Cuid Fundam. 2015;7(3):2659-69. doi: 10.9789/2175-5361.2015.v7i3.2659-2669.
10. Bergonse FN, Rivitti EA. Avaliação da circulação arterial pela medida tornozelo/braço em doentes de úlcera venosa crônica. An Bras Dermotol. 2006;81(2):131-35. doi: 10.1590/s0365-05962006000200003.
11. Macedo EAB, Oliveira AKA, Melo GSM, Nobrega WG, Costa IKF, Dantas DV, et al. Characterization sociodemographic of patients with venous ulcers treated at a university hospital. Rev Enferm UFPE. 2010;4(esp):1919-63.
12. Benevides JP, Coutinho JF, Santos MCL, Oliveira MJA, Vasconcelos FF. Avaliação clínica de úlceras de perna em idosos. Rev RENE. 2012;13(2):300-8.
13. Torres GV, Costa IKF, Medeiros RKS, Oliveira AKA, Sousa AJG, Mendes FRP. Caracterización de las personas con úlcera venosa en Brasil y Portugal: estudio comparativo. Enferm Global. 2013;12(4):75-87.
14. Oliveira BGRB, Nogueira GA, Carvalho MR, Abreu AM. Caracterização dos pacientes com úlcera venosa acompanhados no ambulatório de reparo de feridas. Rev Eletrônica Enferm. 2012;14(1):156-63.
15. Barros BCS, Araujo AL, Magalhães CEV, Barros RLS, Fiorelli SKA, Gatts RF. Eficácia do tratamento cirúrgico das varizes com preservação de veia safena interna. Rev Col Bras Cir. 2015;42(2):111-15. doi: 10.1590/0100-69912015002008.
16. Yamada BFA, Ferrola EC, Azevedo GR, Blanes L, Rogenski NM, Santo VLCG. Competências do enfermeiro estomaterapeuta (ET) ou do enfermeiro pós-graduado em estomaterapia (PGET). Rev Estima. 2008;6(1):33-43.
17. Teixeira AKS, Silva LF. Reflexão sobre o cuidado clínico de enfermagem à pessoa com úlcera venosa segundo a teoria de Imogen King. Rev Estima. 2015;13(3):97-101.
18. Dantas DV. Assistência aos portadores de úlceras venosas: proposta de protocolo [dissertação]. Natal (RN): Universidade Federal do Rio Grande do Norte, Programa de Pós-graduação em Enfermagem; 2010.
19. O'meara S, Cullum NA, Nelson EA. Compression for venouslegulcers. Cochrane Database Syst Rev. 2009; 21;(1):CD000265. doi: 10.1002/14651858.CD000265.pub3.
20. Abreu AM, Oliveira BGRB. Estudo da Bota de Unna comparado à bandagem elástica em úlceras venosas: ensaio clínico randomizado. Rev Latinoam Enferm. 2015;23(4):571-7. doi: 10.1590/0104-1169.0373.2590.
21. Baptista CMC, Castilho V. Levantamento do custo do procedimento com bota de Unna em pacientes com úlcera venosa. Rev Latinoam Enferm. 2006;14(6):1-8.
22. Waidman MAP, Rocha SC, Correa JL, Brischiliari A, Marcon SS. O cotidiano do indivíduo com ferida crônica e sua saúde mental. Texto & Contexto Enferm. 2011;20(4):691-9. doi: 10.1590/s0104-07072011000400007.
23. Dealey C. Cuidando de feridas: um guia prático para as enfermeiras. 3a ed. São Paulo: Atheneu; 2008.
24. Silva DC, Budó MLD, Schimith MD, Torres GV, Durgante VL, Rizzatti SJS, et al. Influência das redes sociais no itinerário terapêutico de pessoas acometidas por úlcera venosa. Rev Gaúcha Enferm. 2014;35(3):90-6. doi: 10.1590/1983-1447.2014.03.45072.