

**92 - ASSESSMENT OF THE CARE PROVIDED TO PATIENTS WITH LOWER LIMB VASCULAR ULCERS AT A UNIVERSITY HOSPITAL IN NATAL, BRAZIL**

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**INTRODUCTION**

The vascular ulcer is a syndrome characterized by irregular loss of the tegument (dermis or epidermis) and may spread to subjacent and subcutaneous tissues, where it attacks lower limb extremities. Its cause is generally related to the arterial vascular and/or venous system (MAFFEI; LASTÓRIA; YOSHIDA, 1995).

Epidemiologic studies of vascular ulcers developed by Frade et al. (2005), Castillo et al. (2004) and Reis et al. (2003) show that they are very frequent in medical practice and that they require considerable financial resources in the health area. Their frequency has been increasing along with the greater life expectancy of the worldwide population.

In Brazil, these lesions are a serious health problem, owing to the large number of patients, even though few of the cases are reported. They burden the National Health System (SUS), in addition to interfering with the daily life of patients and family members alike. They have a profound effect on socioeconomic-psychosocial aspects and contribute significantly to the deteriorating quality of life of these individuals (BRASIL, 2002).

The etiology of vascular ulcers is a result of chronic venous insufficiency (80 to 85% of the cases) and of arterial disease (5 to 10%); the remaining cases are of neuropathic (generally diabetes -3%) or mixed origin (BRASIL, 2002; LONGO JUNIOR, 2001; SEIDEL; MORESCHI JUNIOR, 1999). Furthermore, they are recurrent, incapacitating, difficult to treat, severely compromising the locomotion of affected individuals (TUYAMA et al. 2004; BRASIL, 2002; RAMOS, 2001; SEIDEL; MORESCHI JUNIOR, 1999; FALANGA et al. 1998).

Vascular ulcers (venous and arterial) are a serious problem worldwide. They have a significant economic impact, owing to the elevated indices of these chronic lesions (BRASIL, 2002).

It is estimated that nearly 3% of the Brazilian population has venous ulcers, rising to 10% in diabetics. Around four million persons have chronic lesions or some type of complication in the healing process (FRANÇA; TAVARES, 2003; BRASIL, 2002; LONGO JUNIOR, 2001; SEIDEL; MORESCHI JUNIOR, 1999).

Arterial ulcers are caused by skin malnutrition due to arterial insufficiency, which results in ischemia characterized by cold extremities, and dark ischemic tissue (SEIDEL; MORESCHI JUNIOR, 1999).

The treatment of vascular ulcers is prolonged and complex; it requires interdisciplinary action, the adoption of a systematized care protocol, specific knowledge, technical skill, cooperation among the different health care levels and the active participation of patients and their families within a holistic perspective (FRANÇA; TAVARES, 2003; BRASIL, 2002; LONGO JUNIOR, 2001; SEIDEL; MORESCHI JUNIOR, 1999).

Other authors, such as Aguiar et al. (2005), Borges (2005); Belo Horizonte (2003) and Borges and Chianca (2000), affirm that the quality of care provided to patients with vascular ulcers is related to early clinical diagnosis, systematized care, the use of protocols, systemic treatment and lesion site. Follow-up, evolution and systematized assessment according to each stage and/or complication in the healing process requires an interdisciplinary approach and different levels of complexity.

The daily difficulties experienced by vascular ulcer patients, their families and the health care professionals involved pose a great challenge, mainly to those who work in institutions specialized in angiology.

Accordingly, the purpose of this study was to assess the care given to vascular ulcer patients treated in the dressing station of a hospital specialized in angiology and in their homes on holidays and on weekends and determine the influence of the care provided on vascular ulcer evolution.

**METHODOLOGY**

This is a descriptive study performed in the dressing station of the ambulatory surgical clinic of Onofre Lopes University Hospital (HUOL) of the Universidade Federal do Rio Grande do Norte (UFRN).

The population was composed of patients with vascular ulcers referred by the primary and secondary levels of the National Health System (SUS) for ambulatory angiology consultation. The intentional sample comprised 60 patients with vascular ulcers of venous (VUs) and arterial (AUs) origin.

Selection was based on clinical assessment and diagnosis of the ulcers by the project team. The following inclusion criteria were used: having vascular ulcers (venous and arterial), being referred by the primary and secondary care levels of SUS, accepting to take part in the study and signing the informed consent form.

As data source in this study we used the medical charts of VU patients and a structured form consisting of three parts (interview, observation and VU diagnosis). The research project was approved by the UFRN Research Ethics Committee (protocol CEP/UFRN no. 54/05), respecting the norms established by resolution 196/96 (BRASIL, 1997), regarding the ethical aspects of studies involving human beings.

Participation was strictly voluntary and all the information collected was used for case studies and the final report. The subjects' anonymity was preserved and they could abandon the clinical trial at any time.

The patients selected were enrolled, accompanied, and assessed in the morning from Monday to Friday at the HUOL dressing station. On weekends or holidays this was done by caregivers or the patients themselves after being instructed on proper dressing procedures.

The assessment of the ulcers was done by daily observations, which were recorded on digital photographs and on evolution records. The ulcers were also measured on glass slides to monitor healing.

To assess patient care, we considered the following variables: homecare before treatment, home rest, behavior after admission, infection, home treatment, size variation, treatment duration, treatment regularity, clinical/specialized follow-up, systemic treatment, referral by SUS (National Health System), type of compress therapy, dressing technique at BHU(Basic Health Unit)/home, type of incorrect dressing technique at BHU/home, examinations performed, healing evolution and current

treatment situation.

The data were organized and analyzed using SPSS 14.0. Information on patient characteristics, location, type of vascular ulcer, evolution, treatment substances used and assessment of the factors that interfere in the healing process and in the clinical care provided to the study subjects were tabulated and submitted to descriptive statistical analysis using absolute and relative frequency and inferential statistics (Chi-square with p-value = 0.005).

## RESULTS

The subjects were divided equally between men and women, 73.3% had VUs and 26.7% AUs, 53.3% were older than 59 years, 65% were married, and 66.7% had elementary education. The predominant family monthly income was = US\$350.00 (56.7%) and 71.7% has poor nutritional status. A predominance of 85% lived in Natal (41.7% in the east zone and 23.3% in the north zone), while 15% resided in the interior of Rio Grande do Norte.

Antibiotics and analgesics were used by 65.9% and all the subjects presented with chronic diseases as follows: chronic venous insufficiency (CVI), 73.3%, systemic arterial hypertension (SAH), 56.7% and diabetes mellitus (DM), 38.3%.

We found that 71.7% of the patients had received inadequate care in the previous three months, while 28.3% had been properly cared for.

Within the home we found the following factors to be unsuitable: home care before treatment (90%), rest (43.3%), home treatment behavior (40%), treatment regularity (35%) referral by SUS (61.7%), dressing technique at BHU/home (76.7%), cleanliness during dressing change at BHU/home (84.8%), and the absence of follow-up by a health professional (86.7%).

The ambulatory factors that contributed to this unfavorable situation were: improper post-admission use of cleaning, healing or antiseptic agents (65%), size variation (30%), infection (43.3%), treatment time of more than one year (51.7%), lack of specialized clinical follow-up (65%), systemic treatment (60%), compress therapy (56.7%), domestic dressing kit (45%), examinations performed (46.7%), ulcer evolution (66.7%) and current treatment situation (41.7%).

The following factors influenced vascular ulcer evolution: slow healing process ( $p = 0.000$ ); domestic dressing kit ( $p = 0.001$ ); systemic treatment ( $p = 0.014$ ); treatment regularity ( $p = 0.000$ ); home behavior ( $p = 0.004$ ); infection ( $p = 0.000$ ) and size variation ( $p = 0.008$ ).

## DISCUSSION

The care provided to patients with vascular ulcers is generally complex and requires interdisciplinary action and a systematized behavior and treatment protocol, in addition to physiopathological knowledge of these lesions, a technically skilled professional team, cooperation among the health care complexity levels and the active participation of the patients and their families, within a holistic perspective.

This approach is corroborated by other authors such as Aguiar et al. (2005), Borges (2005), Belo Horizonte (2003), Brasil (2002), Borges and Chianca (2000) and Maffei, Lastoria and Yoshida (1995), who affirm that patients with any etiology require quality care with an integrated view of human beings within their socioeconomic and cultural context. This demands multidisciplinary action, considering the complexity and dynamicity involved in the healing process of these lesions.

In this sense, the quality of care provided to vascular ulcer patients in the health services is related to early clinical diagnosis, systematized care, the use of protocols, systemic treatment and lesion location. Moreover systematized follow-up, evolution and assessment according to each stage and/or complication in the healing process is essential. Healing is generally slow, involving a dynamic and complex process and demanding an interdisciplinary approach and levels of complexity beyond that of basic care. This view is corroborated by several authors such as Aguiar et al. (2005); Borges, 2005; Frade et al. (2005); Castillo et al. (2004); Belo Horizonte (2003); França; Tavares (2003); Reis et al. (2003) ; Brasil (2002) ; Longo Junior (2001) ; Borges ; Chianca (2000) ; and Maffei ; Lastoria ; Yoshida (1995).

The difficulties that venous ulcer patients and their families face daily were detected in studies by Frade et al. (2005); Castillo et al. (2004); Tuyama et al. (2004), Reis et al. (2003). França and Tavares (2003); Longo Junior (2001), Seidel and Moreschi Junior (1999) found similar difficulties faced by health care professionals, a situation that poses a great challenge, mainly to those working in hospital units specialized in angiology.

In this sense, adopting a clinical care protocol for patients with venous ulcers is a basic requirement for quality care which must consider the subsequent stages (AGUIAR et al.. 2005; BORGES, 2005; BELO HORIZONTE, 2003; BORGES; CHIANCA, 2000).

With respect to dressings, the constant lack of materials, the application of dressing by untrained patients and caregivers, in addition to treatment interruption and the lack of follow-up, are negative factors present in the daily routine of these patients. This may be contributing to lesion chronicity (TUYAMA et al. 2004; RAMOS, 2001; SEIDEL; MORESCHI JUNIOR, 1999; FALANGA et al., 1998).

## CONCLUSION

The quality of care provided to patients with VUs and AUs treated at the ambulatory facility of HUOL was considered inadequate. The following contributed to this situation: domestic dressing kits, BHU/home dressing techniques, compress therapy using crepe bandages, home rest, home treatment behavior, lack of specialized clinical follow-up, treatment regularity, infection, increased lesion size and the presence of pain.

Accordingly, we conclude that the factors related to the care provided to vascular ulcer patients influenced the healing process and the quality of care.

These results show the need for rethinking the current care provided in the HUOL ambulatory surgical clinic, as well as creating and implementing a protocol aimed at improving the care provided to patients with vascular ulcers, thus enabling a better evolution of these lesions.

## BIBLIOGRAPHICAL REFERENCES

- AGUIAR, E.T. et al. Diretrizes da SBACV para diagnóstico, prevenção e tratamento da úlcera de insuficiência venosa crônica. *J Vasc Br*, n. 3 supl. 2, p. 195-200, 2005.
- BELO HORIZONTE. Prefeitura Municipal. Secretaria Municipal da Saúde. Gerência de Assistência. Coordenação de Atenção à Saúde do Adulto e do Idoso. **Protocolo de assistência aos portadores de ferida**. 2003. Disponível em <http://www.pbh.gov.br/smsa/protocolos/curativos.pdf>. Acessado em 30/07/2006.
- BORGES, E. L.; CHIANCA, T.C.M. **Tratamento e cicatrização de feridas**: parte I. Revista Nursing, v.3, n. 21, p. 24-9, fev. 2000.
- BORGES, L.E. **Tratamento tópico de ulcera venosa: proposta de uma diretriz baseada em evidências**. Tese

- (Doutorado) - Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, 2005.
- BRASIL. Ministério da Saúde. Conselho Nacional de Saúde. **Diretrizes e normas regulamentadoras de pesquisas em seres humanos**. Resolução. N° 196 de 10 de outubro de 1996. Brasília, 1997.
- \_\_\_\_\_. Secretaria de Políticas de Saúde. Departamento de Atenção Básica. **Manual de condutas para úlceras neurotróficas e traumáticas** / Ministério da Saúde, Secretaria de Políticas de Saúde, Departamento de Atenção Básica. Brasília: Ministério da Saúde, 2002.56p.
- CASTILLO, P.D. et al. Colgajo sural en úlceras venosas crónicas de piernas. **Rev. chil. cir.**, v. 56, n. 5, p.475-480, 2004.
- FALANGA, V. et al. Rapid healing of venous ulcers and lack of clinical rejection with an allogeneic cultured skin equivalent. **Arch Dermatol.**, n.34, p. 293-230, 1998.
- FRADE, M.A.C et al. Úlcera de perna: um estudo de casos em Juiz de Fora-MG (Brasil) e região. **An. Bras. Dermatol.**, v.80, n. 1, p. 41-46, 2005.
- FRANÇA, L.H.G; TAVARES, V. Insuficiência venosa crônica: uma atualização. **J. vasc. Brás.**, v. 2, n. 4, p. 318-328, 2003.
- LONGO JUNIOR, O. Qualidade de vida em pacientes com lesões ulceradas crônicas na insuficiência venosa de membros inferiores. **Cir. vasc. Angiol.**, v.17, n.1, p.21-26. 2001.
- MAFFEI, F.H.A; LASTÓRIA, S.; YOSHIDA, W.B. **Doenças vasculares periféricas**. Rio de Janeiro: Medsi; 1995. p. 1003-1001.
- RAMOS, E.M. Úlceras de pierna: causas infrecuentes. **Rev Med Uruguay**, v.17, p. 33-41, 2001.
- REIS, C.J.U. et al. Estudo prospectivo da evolução das úlceras de estase venosa de membros inferiores no hospital de ensino da Faculdade de medicina do ABC no período de um ano. **Arq. Méd. ABC**, v. 28, n. 1, p. 50-52, 2003.
- SEIDEL, A.C.; MORESCHI JUNIOR, D. Diagnóstico diferencial das úlceras arteriais e venosas. **Am. paul. med. Cir.**, v.126, n.4, p.130-4, 1999.
- TUYAMA, L.Y. et al. Feridas crônicas de membros inferiores: proposta de sistematização da assistência de enfermagem a nível ambulatorial. **Rev Nursing**, v.74, n. 7, 2004.
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## **ASSESSMENT OF THE CARE PROVIDED TO PATIENTS WITH LOWER LIMB VASCULAR ULCERS AT A UNIVERSITY HOSPITAL IN NATAL, BRAZIL**

### **ABSTRACT**

The vascular ulcer is a syndrome characterized by loss of tegument (dermis or epidermis) and may spread to subjacent and subcutaneous tissues, where it attacks lower limb extremities. Its cause is generally related to the arterial vascular and/or venous system. The purpose of this descriptive study, conducted in the dressing station of Onofre Lopes University Hospital/Universidade Federal do Rio Grande do Norte (HUOL/UFRN), was to assess the care provided to patients with vascular lesions and determine the influence of this care on ulcer evolution. The population was composed of vascular ulcer patients (venous - VUs and arterial - AUs), with a final sample of 60 individuals. Data collection was performed using an interview and by observing dressing changes and treatment in the home. The data were analyzed in SPSS software, version 14.0. The 60 subjects were equally divided between men and women; 73.3% had VUs and 26.7% AUs, 53.3% were older than 59 years, 71.7% received inadequate care and 28.3% received proper care. The significant variables related to inadequate care were: healing evolution ( $p = 0.000$ ); dressing change at home ( $p = 0.001$ ); systemic treatment ( $p = 0.014$ ); treatment regularity ( $p = 0.000$ ); home behavior ( $p = 0.004$ ); infection ( $p = 0.000$ ) and size variation ( $p = 0.008$ ). These factors significantly influenced the quality of care provided. The results indicate the need for rethinking the care procedures currently in practice at the HUOL surgical outpatient clinic, as well as the urgency of creating and implementing a protocol aimed at improving the care provided to patients with vascular ulcers, thus enabling a better evolution of these lesions.

KEYWORDS: Care; Quality; Vascular ulcers.

## **EVALUATION DE L'ASSISTENCE AUX PORTEURS D'ULCERES VASCULAIRES DE MEMBRES INFÉRIEURS DANS UN HÔPITAL UNIVERSITAIRE DE NATAL, RIO GRANDE DO NORTE**

### **RÉSUMÉ**

L'ulcère vasculaire est un syndrôme caractérisé par la perte du tégument (derme ou épiderme) pouvant atteindre des tissus sous-cutanés et sous-jacents, qui touche les extrémités des membres inférieurs et dont la cause est généralement liée au système vasculaire artériel et/ou veineux. Cette étude descriptive réalisée dans le service de soins HUOL/UFRN a pour objet d'évaluer l'assistance aux porteurs de liaisons vasculaires et de vérifier l'influence de l'assistance apportée dans l'évolution des ulcères. La population (60 personnes) est composée de porteurs d'ulcères vasculaires (vénous - UVs et artériels - UAs). La collecte de données a été réalisée à travers d'entretiens, d'observation de soins et de traitements à domicile. Les données ont été analysées avec SPSS 14.0. Des 60 patients, la moitié était masculine, l'autre féminine, 73,3 % porteurs d'UVs et 26,7% d'UAs, 53,3 % avaient plus de 59 ans, 71,7% a présenté l'assistance comme inadéquate et 28,3% adéquate. Les variables significatives de l'inadéquation de l'assistance ont été : l'évolution de la cicatrisation ( $p=1000$ ) ; le kit de soin à domicile ( $p=0,001$ ) ; le traitement systématique ( $p=0,014$ ) ; la régularité du traitement ( $p=0,000$ ) ; le comportement à domicile ( $p=0,004$ ) ; l'infection ( $p=0,000$ ) et la variation de la dimension ( $p=0,008$ ). Ces facteurs ont influencé de façon effective la qualité de l'assistance portée. Les résultats montrent la nécessité de repenser l'assistance actuelle développée dans le service de consultations externes de la clinique chirurgique du HUOL, ainsi que l'urgence de la discussion, de la création et de l'implantation d'un protocole d'assistance, en vue d'améliorer les soins aux porteurs d'ulcères vasculaires, pour une meilleure évolution des lésions.

MOTS-CLES : Assistance ; Qualité ; Ulcères vasculaires

## **EVALUACIÓN DE LA ASISTENCIA A LOS PORTADORES DE ÚLCERAS VASCULARES DE MIEMBROS INFERIORES EN UN HOSPITAL UNIVERSITARIO EN NATAL/RN**

### **RESUMEN**

La úlcera vascular es un síndrome caracterizado por pérdida del tegumento (dermis o epidermis), pudiendo alcanzar la zona subcutánea y tejidos subyacentes, que ataca a las extremidades de los miembros inferiores y cuya causa está relacionada generalmente, con el sistema vascular arterial y/o venoso. Este estudio descriptivo ha sido realizado en el sector de curas de la HUOL/UFRN y ha tenido como objetivo evaluar la asistencia a los portadores de lesiones vasculares y verificar la influencia de la asistencia prestada en la evolución de las úlceras. La muestra se compone de 60 pacientes portadores de

úlceras vasculares (venosas - UVs y arteriales -UAs),. La toma de datos fue realizada mediante entrevista y observación del proceso de cura y tratamiento a domicilio. Los datos han sido analizados usando el SPSS 14.0. De los 60 investigados, 50% eran de sexo femenino, 50% masculino. El 73,3% eran portadores de UVs y el 26,7% de UAs. El 53,3% superaba los 59 años. El 71,7% tuvo una asistencia de calidad inadecuada y el 28,3% adecuada. Las variables significativas para calificar el tipo de asistencia fueron: evolución de la cicatrización ( $p= 0,000$ ); fin de la asistencia a domicilio ( $p= 0,001$ ); tratamiento sistémico ( $p= 0,014$ ); regularidad del tratamiento ( $p= 0,000$ ); conducta en la asistencia a domicilio ( $p= 0,004$ ); infección ( $p= 0,000$ ) y variación de la dimensión ( $p= 0,008$ ). Estos factores influenciaron de forma efectiva en la calidad de la asistencia prestada. Los resultados denotan la necesidad de reconsiderar el tipo de asistencia desarrollado en el ambulatorio de clínica quirúrgica del HUOL así como la necesidad de discutir estos aspectos de calidad asistencial y crear e implantar un protocolo de asistencia, con el objetivo de aumentar la calidad de los cuidados a los portadores de úlceras vasculares y buscar la mejor evolución de esas lesiones.

PALABRAS CLAVE: Asistencia; Calidad; Úlceras vasculares.

## AVALIAÇÃO DA ASSISTÊNCIA AOS PORTADORES DE ÚLCERAS VASCULARES DE MEMBROS INFERIORES EM UM HOSPITAL UNIVERSITÁRIO EM NATAL/RN

### RESUMO

A úlcera vascular é uma síndrome caracterizada por perda do tegumento (derme ou epiderme), podendo atingir subcutâneo e tecidos subjacentes, que acomete as extremidades dos membros inferiores e cuja causa está, geralmente, relacionada ao sistema vascular arterial e/ou venoso. Este estudo descritivo realizado no setor de curativos HUOL/UFRN teve por objetivos avaliar a assistência aos portadores de lesões vasculares e verificar a influência da assistência prestada na evolução das úlceras. A população foi composta por portadores de úlceras vasculares (venosas - UVs e arteriais -UAs), amostra composta por 60 pacientes. A coleta de dados foi realizada com entrevista e observação do curativo e tratamento domiciliar. Os dados foram analisados no SPSS 14.0. Dos 60 pesquisados, 50% eram de cada sexo, 73,3% portadores de UVs e 26,7% de UAs, 53,3% acima de 59 anos. 71,7% apresentou uma qualidade inadeguada da assistência e 28,3% adequada. As variáveis significativas na inadequação da assistência foram: evolução da cicatrização ( $p= 0,000$ ); quite curativo domiciliar ( $p= 0,001$ ); tratamento sistêmico ( $p= 0,014$ ); regularidade do tratamento ( $p= 0,000$ ); conduta domiciliar ( $p= 0,004$ ); infecção ( $p= 0,000$ ) e variação da dimensão ( $p= 0,008$ ). Estes fatores influenciaram de forma efetiva na qualidade da assistência prestada. Os resultados denotam a necessidade de repensar a atual assistência desenvolvida no ambulatório de clínica cirúrgica do HUOL, bem como, a urgência na discussão, criação e implementação de protocolo de assistência, com vista a qualificar os cuidados aos portadores de úlceras vasculares, visando uma melhor evolução dessas lesões.

PALAVRAS-CHAVE: Assistência; Qualidade; Úlceras vasculares.