

71 - EFFECTIVENESS OF THE USE OF THE BOOT UNNA IN THE TREATMENT OF VENOUS ULCERS: A LITERATURE REVIEW

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INTRODUCTION

Venous ulcers (UVs) are becoming an important public health problem throughout the world, being responsible for considerable economic impact, significant morbidity, social and psychological exhaustion in patients and family members (NUNES, 2006).

These chronic leg injuries, of high incidence of clinical, bring not only physical suffering to the patient, it also prevents from working, because the lesion remains often open for months or years, causing socioeconomic problems, both for himself as for health organizations and society. The most common cause for their development is venous insufficiency, which is precipitated by venous hypertension (BAPTISTA; CASTILHO, 2006).

Venous ulcers have great socioeconomic importance because it represents 60 to 70% of all leg ulcers and affect large numbers of people who suffer from this evil by many years of their lives, leading to compromised quality of life and conditions for productive work (NUNES, 2006; MAFFEY, 2002).

In Brazil, it is estimated that almost 3% of the population are carriers of venous ulcers, which amounting to 10% for diabetics (PIEPER; CALIRI, Cardoso, 2007, FRANCE; TAVARES, 2003).

The UV treatment is long and complex, requiring specific knowledge, technical skills, interdisciplinary, articulation between levels of complexity of care and active participation of the carriers and their families within a holistic perspective (PIEPER; CALIRI, Cardoso, 2007).

Several types of treatment are known, the most common being the simple hygiene of the ulcer and rest with members high, which, however, is impossible to be followed by most patients. The success of treatment depends on comprehensive measures to control chronic venous insufficiency and has as a fundamental part: the compression, which in many cases is the only available resource, aiming to offset intravascular pressures, in synergy with the movements of the calf (REIS et. al., 2003).

Studies show that compression therapy increases the rate of venous ulcer healing should be used regardless of the type of dressing to be applied to the ulcer (BORGES; CALIRI; HAAS, 2007).

The compression therapy can be obtained using stockings or bandages which can be classified as elastic or inelastic and have one or more layers. Among them, we have the Unna boot (BORGES, 2005).

The Unna boot was developed by the German dermatologist Paul Gerson Unna in 1896, and consists of a compression bandage Zinc oxide, calamine, glycerin and gelatin (MAFFEY, et al., 2002).

Maffei et al., (2002) also reports that over the years have been observed that the use of Unna Boot is a very effective result of healing.

In the process of treatment, it is essential that health professionals know well the therapies used. This fact becomes important due to increased demand for health services by the population and due to the scarcity of resources, mainly financial (BAPTISTA; CASTILHO, 2006).

Inserted in this context, the nurses are the professionals who are more involved in the treatment of wounds. Thus, by having an important role in treatment, as also because of the prevalence and socioeconomic impact of UV, nurses must have knowledge about the effectiveness of the treatment of venous ulcers with Unna boot, trying to give their patients the opportunity for treatment with a technique that has achieved great results on the healing of this type of injury.

Thus, this study aims realize an literature review on the effectiveness of the use of the Unna boot in the treatment of UVs, once a time the adoption of appropriate therapeutic contributes significantly to early healing of these lesions, reducing its chronicity and complications.

This way, the importance of this research is due to the fact that with the same we will have clinical evidence of the effectiveness of therapy with Unna boot, as also will contribute to increase the number of scientific studies on this topic, since this is still quite scarce. Are we still with this study, enabling discussion about the care most appropriate to be provided to patients with venous ulcers.

METHODOLOGY

This is a study of literature review that sought to study the effectiveness of the use of Unna boot in the treatment of UVs. To this, was realized the research of studies indexed or cataloged in the databases SciELO and LILACS, the Virtual Health Library (BVS), and from the PubMed and HighWire Press.

In BVS, the search was done by descriptors, and used the descriptors unna boot and treatment of varicose ulcer, while in the PubMed database and HighWire Press, has used the term unna boot.

The inclusion criteria adopted for the selection of studies were: work related to the effectiveness of Unna Boot and featuring simultaneously the descriptors above mentioned, are presented in full text, are available online, open access, and have been published since the year 2000.

The search in the database SCIELO using the descriptors unna boot and treatment of varicose ulcer, were found 04 publications, however only 01 met the inclusion criteria, being selected for the study.

By using the same descriptors in the LILACS database were obtained from 12 articles and selected 04.

In the HighWire Press, using the descriptor unna boot, werw found 34 articles. After analyzing these, only 03 were selected because they meet all the criteria for inclusion default.

Already in the PubMed database using the same descriptor used in HighWire Press, were found 32 articles, only 03 were selected because they meet the predefined criteria for inclusion in this study.

At the end of the search 11 papers were selected to be analyzed and discussed in this review.

The results of this research will be presented in a descriptive way, relating what was quoted by the authors in their studies.

RESULTS AND DISCUSSION

The selected articles were studies on clinical trials and review of literature that brought data on the effectiveness of the use of Unna Boot in the treatment of UVs.

In the study by Slezak, et al. (2004), on the assessment of healing of UV, the participants had their injury, measures on the size of the area that was enclosed by the edge of the ulcer and on the initial depth. In this study, patients were divided into three groups, where the first and third group was treated with hydrocolloid and elastic bandage and the second group, the Unna boot. It is worth mentioning that the initial ulcer area was the same in groups 1 and 2, but in group 3, was six times smaller.

Among patients of the group who used therapy of Unna boot, the first healing was obtained after 56 days, the highest number of cures was obtained after 91 days of implementation of therapy, and the last to heal UV occurred after 126 days of use the Unna boot. However, patients of group 01 the first healing occurred after 14 days of implementation of therapy, the highest number of healed lesions occurred after 63 days and the last healing after 91 days using elastic bandage and hydrocolloid. In the patients of group 03 the first healing also occurred after 14 days of treatment, the largest number of healed lesions occurred after 49 days of implementation of therapy, and the last injury had healed after 65 days of use of elastic bandage and hydrocolloid.

Thus, in view of these results the study concluded that the average time of ulcer healing for patients in group 2, who made use of therapy with Unna's boot, was the largest of all with 91.2 days.

Beyond, of the higher average time of healing, the patients who used the Unna boot had the lowest rate of healing, which means that in this study the use of hydrocolloid associated with compression therapy was more effective than the use of the Unna boot.

In the study by Koksala and Bozkurtb, (2003), he was tested the efficacy of a hydrocolloid dressing associated with the elastic bandage compared with the Unna boot, in which sixty patients were divided into two groups (Groups A and B), the group A treated with Unna boot and group B treated with hydrocolloid dressings associated with elastic bandage, it was found that there was no difference found between the use of both therapies on the rate of complete healing, reduction wound weekly and healing time.

Whereas the duration of the ulcers ranged from 5.8 to 16.6 weeks in group A and 6.2 to 16.9 weeks in group B ($p > 0.05$), regarding this complete healing that was 74,07% in group A and 76% in group B ($p > 0.05$), on the weekly reduction of wound surface that ranged from 0.72 to 1.28 cm² in group A and from 0.38 to 1.16 cm² in group B ($p > 0.05$) and the healing time ranged from 3.60 to 6.85 weeks in group A, while ranged from 3.31 to 6.65 weeks in group B ($p > 0.05$).

Koksala and Bozkurtb, (2003), report that only were significant the ease in the use of hydrocolloid dressings associated with elastic bandage ($p < 0.0001$), and the lowest degree of pain also in those patients with group B ($p < 0,0001$).

Thus, the hydrocolloid plus elastic compression, proved was higher than the Unna boot in terms of comfort and convenience of the patient.

However, in general, the results of the study have revealed that therapy with Unna boot is effective.

To clarify this question of the effectiveness of Unna Boot, Blecken, Villavicencio and Kao (2005), compared randomly the use of non-elastic compression, Unna boot, (group A) using four layers of elastic bandage (group B) in patients with UV.

At the end of the 12 week period of observation has been that the healing rate was faster in group A than in group B, although the same number of injury has healed to the end of this period in both groups.

Corroborating the study of Blecken; Villavicencio and Kao (2005), Reis et al., (2003) also reported greater effectiveness of treatment with Unna boot, in relation to the elastic treatment. In this work, we studied 124 patients 84 ulcers, which were divided into two groups: 01 (Unna boot) and group 02 (treatment elastic). The evolution of the wounds was evaluated using measures of area, noted in the protocol and divided into four groups: wound healing, reduced wound, increased of wound and unchanged wound.

In this study, we observed a healing rate of 53.3% for group 01, group that made use of the Unna boot, and 26.58% for the 02 who made use of elastic treatment. Regarding the healing time the average time was 5.29 months for the 01 and 5.48 months for group 02, not getting, this topic, statistically significant difference (Reis et al., 2003).

Finally, therapy with Unna boot is undervalued, even though clinical evidence emphasizes its importance in autodesbridamento, an anti-infectious action, and promotion of epithelization. Considering that, when compared with other treatments the therapy with boot Unna obtained results as good or better (LANSDOWN, et. al., 2007; BERGAN; SPARKS, 2000).

CONCLUSIONS

The analysis of selected publications showed that the use of therapy with Unna boot is considered effective in the treatment of UVs, with this therapy achieved remarkable results in healing UVs, which were equal or superior to other therapies well know. However, this still has its importance undervalued.

Thus, from this study can realize the importance of studies on the effectiveness of using this therapy, considering that studies on this topic are scarce. Well, this way it becomes possible to disseminate the positive results that this technique is gaining in healing UVs, so that health professionals, increase their range of options in treating these patients, given that it is today a problem of great importance, because of the large number of people it affects.

In this regard, we point to a reflection on the need for more studies on this topic in order to offer healthcare professionals more opportunities to update their scientific knowledge and so provide a higher quality of treatment for patients with this type of injury.

REFERENCES

- BAPTISTA, C. M. C; CASTILHO, V. Levantamento do custo do procedimento com bota de unna em pacientes com úlcera venosa. *Rev Latino-am Enfermagem*. v. 14, n. 6, 2006.
- BERGAN, J. J; SPARKS, S. R. Non-elastic compression: an alternative in management of chronic venous insufficiency. *J. Wound Ostomy Continence Nurs*. v. 27, n. 2, p. 83-9, 2000.
- BLECKEN, S. R; VILLAVICENCIO, J.L; KAO, T. C. Comparison of elastic versus nonelastic compression in bilateral venous ulcers: A randomized trial. *Journal of Vascular Surgery*. v. 42, n. 6, 2005.
- BORGES, E. L. Tratamento tópico de úlceras venosa: proposta de uma diretriz baseada em evidências. [Tese de Doutorado]. São Paulo (SP): Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, 2005.
- BORGES, E. L; CALIRI, M.H.L; HAAS, V. J. Systematic review of topic treatment for venous ulcers. *Rev Latino-am Enfermagem*. v. 15, n. 6, p. 1163-70, 2007.
- FRANÇA, L. H. G; TAVARES, V. Insuficiência venosa crônica: uma atualização. *J. Vasc. Br*. v. 2, n. 4, p. 318-28, 2003.
- KOKSAL, C. ; BOZKURT, A. K. Combination of hydrocolloid dressing and medical compression stockings versus

Unna's boot for the treatment of venous leg ulcers. *Swiss Med Wkly.* v. 133, n. 25-26, p. 364-8, 2003.

LANSDOWN, A. B. Zinc in wound healing: theoretical, experimental, and clinical aspects. *Wound Repair Regen.* v. 15, n. 1, p. 2-16, 2007.

LESZAK, A. et. al. Evaluation of the efficiency of venous leg ulcer treatment with a membrane dressing. *Medical Engineering & Physics.* n. 26, p. 53-60, 2004.

MAFFEI, F. H. A. et. al. In. *Doenças vasculares periféricas*. Ed. Medsi, Rio de Janeiro, 2002.
 MAFFEY, F. H. A. *Insuficiência venosa crônica: conceito, prevalência etiopatogênica e fisiopatologia*. In: Maffey FHA et al. *Doenças vasculares periféricas*. v. 8, p. 1581-90, Medsi, 3ed., Rio de Janeiro, 2002.

NUNES, J. P. Avaliação da assistência à saúde aos portadores de úlceras venosas de membros inferiores atendidos no programa saúde da família do município de Natal/RN. [dissertação de Mestrado em Enfermagem]. Natal (RN): Departamento de Enfermagem, Universidade Federal do Rio Grande do Norte, p. 136, 2006.

PIEPER, B; CALIRI, M. H.R; CARDOSO, L. J. *Úlceras venosas e doenças venosas*. 2002. Disponível em: <http://www.erp.usp.br/projetos/feridas/uvvenosa.htm>. [acesso em 13 dez. 2007].

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. Med. ABC.* v. 28, n. 1, p. 50-55, 2003.

EFFECTIVENESS OF THE USE OF THE BOOT UNNA IN THE TREATMENT OF VENOUS ULCERS: A LITERATURE REVIEW

ABSTRACT

This is a study of literature review that aims to check on the databases SciELO, Lilacs, Pub Med and Highwire Press, publications about the effectiveness of the use of Unna Boot on the healing of venous ulcers. To do this, were used as descriptors the terms treatment of ulcers varicose and unna boot in the databases and Lilacs and Scielo unna boot in PubMed and HighWire Press. The inclusion criteria adopted for the selection articles were: work related to the effectiveness of Boot Unna in healing of UV; be presented in full text, are available online, open access, and have been published since 2000. Accordingly, were selected articles about clinical trials and literature review, and found that the use of Unna Boot is effective in healing UVs, although this therapy to be still undervalued.

KEYWORDS: varicose ulcer; treatment; wound healing.

L'UTILISATION EFFICACE DE LA BOTTE D'UNNA DANS LA GUÉRISON DES ULCÈRES VEINEUX: A LITERATURE REVIEW.

RÉSUMÉ

Il s'agit d'une étude de la revue de la littérature afin de vérifier les bases de données SciELO des publications, des lilas, Pub Med et HighWire Press, quant à l'efficacité de l'utilisation de Unna Boot sur la cicatrisation des ulcères veineux. Pour ce faire, nous avons utilisé des termes comme descripteurs de traiter les ulcères variqueux et démarrer Unna aux bases de données et des Lilas et Scielo démarrage Unna dans PubMed et HighWire Press. Les critères d'inclusion pour la sélection des articles étaient: travail liée à l'efficacité de la guérison Unna Boot UV; être présentés en version intégrale, sont disponibles en ligne, accès libre, et ont été publiés depuis 2000. En conséquence, nous avons sélectionné des articles sur les essais cliniques et revue de la littérature, et constaté que l'utilisation d'Unna Boot est efficace dans la guérison des UVs, bien que cette thérapie est encore sous-évalué.

MOTS-CLÉS: traitement de l'ulcère variqueux; cicatrisation des plaies

LA EFICACIA DE LA BOTA DE UNNA EN LA CURACIÓN DE LAS ÚLCERAS VENOSAS: UNA REVISIÓN DE LA LITERATURA.

RESUMEN

Este es un estudio de revisión de la literatura a fin de verificar las bases de datos SciELO, Lilacs, Pub Med y HighWire Press, las publicaciones sobre la eficacia de la utilización de la bota de unna en la cicatrización de las úlceras venosas. Para ello, hemos utilizado los términos para describir el tratamiento de úlceras varicosas y bota de Unna a las bases de datos y Lilacs y Scielo bota de Unna en PubMed y HighWire Press. Los criterios de inclusión para la selección de los artículos fueron: el trabajo relacionado con la eficacia de bota de Unna de curación UV; se presentará en texto completo están disponibles en línea, el acceso abierto, y se han publicado desde 2000. En consecuencia, se seleccionaron los artículos sobre ensayos clínicos y la revisión de la literatura, y encontró que el uso de la bota de unna UV es eficaz en la curación de las úlceras venosas, aunque este tratamiento sigue estando subvaluado.

PALABRAS CLAVES: tratamiento de las úlceras varicosas, cicatrización de la herida

EFETIVIDADE DO USO DA BOTA DE UNNA NO TRATAMENTO DE ÚLCERAS VENOSAS: UMA REVISÃO DE LITERATURA

RESUMO

Trata-se de um estudo de revisão de literatura com o objetivo de verificar nas bases de dados Scielo, Lilacs, Pub Med e Highwire Press, publicações acerca da efetividade do uso da Bota de Unna na cicatrização de úlceras venosas. Para isso, foram utilizados como descritores os termos tratamento de úlcera varicosa e bota de unna, para as bases de dados Scielo e Lilacs e unna boot na PubMed e HighWire Press. Os critérios de inclusão adotados para a seleção de artigos foram: trabalhos relacionados à efetividade da Bota de Unna na cicatrização de UV; serem apresentados em texto completo; estarem disponíveis online, com acesso livre; e terem sido publicados a partir do ano 2000. Nesse sentido, foram selecionados artigos referentes a ensaios clínicos e revisão de literatura, sendo verificado que o uso da Bota de Unna é efetiva na cicatrização de UVs, embora tal terapia ainda seja subvalorizada.

PALAVRAS-CHAVE: úlcera varicosa; tratamento; cicatrização de feridas

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