72 - THE INFLUENCE OF DIABETES MELLITUS IN WOUND HEALING: REVIEW STUDY

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INTRODUCTION

Diabetes mellitus is a metabolic disorder caused by the secretion and / or action of insulin, hyperglycemia and / or hyperinsulinemia. Hyperglycemia can cause a hardening and narrowing of the arteries and thus a reduction in blood flow (RIBEIRÃO PRETO, 2004).

In addition, hyperglycemia can affect the peripheral nerves of the legs and feet, causing a decrease or loss of sensitivity thermal, touch and pain. At this decreased sensitivity to the name of diabetic neuropathy (RIBEIRÃO PRETO, 2004).

Many of the clinical complications of diabetes can be attributed to changes in vascular function and structure, with consequent damage organ irrigated and death (SMITH, 2005).

Thus, in some diabetics may show nerve damage associated with lesions in the vessels. This condition is called neuroischemic foot and can lead to infections in the skin, or a simple callus, a cleavage, an injury, becomes a serious problem, not treated properly, can cause: gangrene with risk of amputation and even life-threatening (RIBEIRÃO PRETO, 2004).

The diabetic foot is one of the most serious and costly complications of diabetes mellitus. Amputation of a lower extremity or part of it is usually a consequence of a foot ulcer. A strategy that includes prevention, education of patients and health professionals, multidisciplinary treatment of foot ulcers, and strict monitoring can reduce amputation rates among 49 to 85% (BELO HORIZONTE, 2006).

In order to prevent the serious consequences of these lesions, patients should be examined at least once a year to detect potential problems in the foot. Patients with risk factors proven to be examined more frequently in the range of one to six months. The absence of symptoms does not mean that the legs are healthy, because patients may have neuropathy, peripheral vascular disease or an ulcer without any complaints (BELO HORIZONTE, 2006).

Moreover, it is worth noting that care with the healing of wounds require interdisciplinary, adoption of the protocol, specific knowledge, technical skills, articulation between levels of complexity of care of the Unified Health System (SUS) and also active participation of patients with these injuries and their families within a holistic perspective (TORRES, et al. 2007).

Therefore, we need a holistic view of the factors which affect the healing process, such as control of underlying pathology (hypertension, diabetes mellitus), factors nutritional, infectious, drug, and especially the treatment and prevention of new lesions (MORAIS, OLIVEIRA , SOARES, 2008).

In this context, this article aims to characterize the scientific production published in the Virtual Health Library (VHL), the influence of diabetes mellitus on wound healing, as the author of the research, year of publication, the authors category, type of study and approach the subject matter related, the paper published and local search.

METHODOLOGY

The research is exploratory and descriptive quantitative approach, carried out in electronic databases available on the Virtual Health Library (VHL).

The research includes the descriptive literature and documentary. In this study we chose a literature review, according to Barros and Lehfeld (2000) seeks to solve a problem or acquire knowledge from information derived from the material researched.

The quantitative approach allows a systematic collection of numerical information under conditions of too much control, analyzing through this statistics information(POLIT; BECK; HUNGLER, 2004).

The survey was conducted in October 2009, VHL, specifically in the databases of the Latin American and Caribbean Health Sciences (LILACS), International Literature in Health Sciences (MEDLINE), Scientific Electronic Library Online (SCIELO), Database of Nursing (BDENF) and Bibliografia Brasilian Odontology (BBO).

The descriptors used for data collection were: "diabetes mellitus" and "wound healing", according to the Descriptors in Health Sciences (DECS). The criteria for inclusion of articles pointed to studies about the influence of diabetes mellitus on wound healing, published between the years 2005 to 2009 in the form of the full text. The exclusion criteria have focused for the studies that did not respond to our question and they were published in more than one database.

During the collection, there were a total of 6 articles distributed as follows: 1 LILACS, MEDLINE 3, 1 and 1 in SCIELO the BBO. In indexed for there are no studies that met the inclusion criteria of the study.

The data collected were sketched on a framework for better understanding.

BASE	AUTHORS (YEAR)	CATEGORY OF AUTHORS	TYPE RESEARCH/ APPROACH	SUBJECT	JOURNAL	PLACE
SCIELO	Minatel et al., 2009	Teachers post-graduation	Case study / quantitative	Treatment of ulcers in diabetic	Anais Brasileiros de Dermatologia	Ribeirão Preto/SP
MEDLINE	Chen e Raymond, 2008	Student and teacher post-graduation	Literature review / qualitative	Treatment of ulcers in diabetic	Vascular Health and Risk Management	Austrália
MEDLINE	Scott et al., 2008	Teachers post-graduation	Experimental / quantitative	Treatment of ulcers in diabetic	Wound RepairRegen.	Washin-gton
BBO	Esteves et al., 2008	Dentist practice and teaching post-graduation	Descriptive / quantitative	Treatment of ulcers in diabetic	J Appl Oral Sci.	Araçatuba/SP
MEDLINE	Cho et al., 2006	Medical care and teaching post-graduation	Descriptive / quantitative	Factors that influence the wound healing	PNAS	Coréia
LILACS	Rossi, Rossi e Fonseca Filho, 2005	Medical care and teaching post-graduation	Descriptive / quantitative	Factors that influence the wound healing	Rev. Bras. Ortopedia	Campina/SP

According to Frame 1, most studies were located in MEDLINE (50.0%) in the year 2008 (50.0%), produced by teachers (100.0%) of graduate and professional assistance (50 , 0%), using the descriptive study (50.0%), with a quantitative approach (83.3%).

The study of Silveira (2005) reported that the majority of scientific publications are produced by teachers or with the help of these. The author argues that professional assistance, usually disseminate their research in the form of abstracts published in proceedings of scientific events and concludes that this professional category has little motivation or difficulty in publishing their research in scientific articles.

It is worth noting that the nurses did not appear with authors in studies on the issue in this research. However, know that nursing professionals have a key role with regard to the holistic care of the patient, but also plays an extremely important work in treating wounds, as it has more contact with it, attached to the lesion, directs and executes the dressing, and with greater control over this technique, because he had in their training curriculum components toward this practice and nursing team to develop it as one of its tasks (MORAIS, OLIVEIRA, SOARES, 2008).

As for how to approach, quantitative research is an objective description, systematic and quantitative content manifest in communication. So, to Bauer and Gaskell (2004), quantitative research deals with numbers, uses statistical models to explain the data and research is considered hard.

With regard to the matters addressed by the papers, 66.7% studied the treatment of ulcers in patients with diabetes and 33.3% portrayed the influential factors for wound healing, among them diabetes mellitus.

Regarding the treatment of injuries, Lorimer et al. (2003) consider as a fundamental aspect in the approach to patients with wounds assistance guided by systematic protocol that includes clinical assessment, diagnosis, treatment planning, implementation of the plan of care, development and review of management and treatment, and work permanent educational team involving people with injuries, their families and caregivers.

According Borges (2005), is through a systematized protocol assistance for the multidisciplinary team of trained health can evaluate factors related to aspects: clinical (type of pain, time and characteristics of the affected limb and the injury), healthcare (diagnostic , ducts and therapeutic interventions) and the quality of life of patients that may interfere in the healing of the ulcer.

On the place of publication, 50.0% of the studies took place in the State of São Paulo and 50.0% abroad, especially countries in the continent of Australia, Asia and North America.

CONCLUSION

According to the survey notes that most studies were located in MEDLINE, in 2008, produced by teachers graduate, using the descriptive and quantitative approach.

Regarding to the matters addressed by the papers, they studied the treatment of ulcers in diabetic patients and the influencing factors for wound healing, among them diabetes mellitus. On the place of publication, studies were conducted in the State of Sao Paulo and abroad, especially countries in the continent of Australia, Asia and North America.

Because of the complexity and impact made by diabetic patients with skin lesions, it is a comprehensive approach by health professionals. Accordingly, a multidisciplinary team, including nurses, could contribute significantly in the organization of care to these clients.

However, this study has not sunk in research by nurses.

It is emphasized that these professionals are responsible for the care to patients with wounds, and to develop strategies of prevention, assessment and treatment for the control and this approach, to promote an environment that supports effective healing without further complications or commitments.

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THE INFLUENCE OF DIABETES MELLITUS IN WOUND HEALING: REVIEW STUDY

Diabetes mellitus is a metabolic disorder caused by the secretion and / or action of insulin, hyperglycemia and / or hyperinsulinemia, that can influence the healing of injuries. So is necessary a holistic view of the factors which affect the healing process, such as control of underlying pathology (hypertension, diabetes mellitus), nutritional, infectious, drug, and especially the treatment and prevention of new lesions. The objective of this review article is to characterize the scientific production published in the Virtual Health Library (VHL), the influence of diabetes mellitus on wound healing, as the author of the research, year of publication, the authors category, type of study and approach the subject matter related, the paper published and local search. The research is a descriptive (literature review) and quantitative approach, carried out in VHL (LILACS, MEDLINE, SciELO and BDENF and BBO), using the key words "diabetes mellitus" and "healing". During the collection, there were 6 items: 1 LILACS, 3 MEDLINE, 1 in SCIELO and 1 in the BBO. The data collected were sketched on a framework for better visualization and understanding. According to the survey, most studies were located in MEDLINE (50.0%) in the year 2008 (50.0%), produced by teachers graduate (100.0%), using the study descriptive (50.0%) and a quantitative approach (83.3%). The subjects discussed were the treatment of ulcers in patients with diabetes (66.7%) and the influential factors for wound healing (33.3%), among them diabetes mellitus. On the place of publication, 50.0% were state of Sao Paulo and 50.0% international. Diabetes is an important risk factor for the development of lesions and influence in the healing process, aggravating the condition of the patient and contributing to the chronicity of these wounds, changing patterns of morbidity in these individuals.

KEYWORDS: diabetes mellitus, wound healing, review, nursing

L'INFLUENCE DU DIABETE SUCRE DANS LA CICATRISATION: UNE ETUDE DE L'EXAMEN

Le diabète sucré est une maladie métabolique causée par la sécrétion et / ou de l'action de l'insuline, l'hyperglycémie et / ou l'hyperinsulinémie, qui mai influencer la guérison des blessures. Pour ce faire, un point de vue holistique des facteurs qui affectent le processus de guérison, comme le contrôle de la pathologie sous-jacente (hypertension, diabète sucré), de la nutrition, maladies infectieuses, la drogue, et surtout le traitement et la prévention de nouvelles lésions. L'objectif de cet article de synthèse est de caractériser la production scientifique publiée dans la bibliothèque virtuelle en santé (VHL), l'influence du diabète sucré sur la cicatrisation des plaies, comme l'auteur de la recherche, année de publication, la catégorie des auteurs, type d'étude et l'approche de l'objet lié, le document publié et de recherche locale. La recherche est un descriptif (revue de la littérature) et l'approche quantitative, réalisée en VHL (lilas, MEDLINE, SciELO et BDENF et BBO), en utilisant les mots-clés «diabète» et la «guérison». Lors de la collecte, il ya eu 6 points: 1 LILACS, MEDLINE 3, 1 en SCIELO du et 1 BBO. Les données recueillies ont été tracées sur un cadre pour une meilleure visualisation et la compréhension. Selon le sondage, la plupart des études étaient situés dans MEDLINE (50,0%) en l'an 2008 (50,0%), produit par les enseignants diplômés (100,0%), en utilisant l'étude descriptive (50,0%) et une approche quantitative (83,3%). Les sujets abordés ont été le traitement des ulcères chez les patients atteints de diabète (66,7%) et les facteurs influents pour la cicatrisation des plaies (33,3%), parmi lesquels le diabète sucré. Sur le lieu de publication, 50,0% étaient Etat de Sao Paulo et 50,0% à l'étranger. Le diabète est un facteur de risque important pour le développement de lésions et d'influence dans le processus de guérison, ce qui aggrave l'état du patient et contribuer à la chronicité de ces plaies, l'évolution de la morbidité chez ces personnes.

MOTS-CLÉS: diabète sucré, la cicatrisation, d'examen, les soins infirmiers

LA INFLUENCIA DE LA DIABETES MELLITUS EN CICATRIZACIÓN: UN ESTUDIO DE REVISIÓN

La diabetes mellitus es un trastorno metabólico causado por la secreción y/o la acción de la insulina, hiperglucemia y/o la hiperinsulinemia, que pueden influir en la curación de las lesiones. Para ello se requiere una visión holística de los factores que afectan el proceso de curación, como el control de la patología subyacente (hipertensión, diabetes mellitus), nutricionales, infecciosas, de drogas, y especialmente el tratamiento y la prevención de nuevas lesiones. El objetivo de este artículo de revisión es caracterizar la producción científica publicada en la Biblioteca Virtual en Salud (BVS), la influencia de la diabetes mellitus en la cicatrización de heridas, como el autor de la investigación, el año de publicación, la categoría de autores, tipo de estudio y el enfoque de la relación con la materia, el artículo publicado y búsqueda local. La investigación es de tipo descriptivo (revisión de la literatura) y el enfoque cuantitativo, realizado en la BVS (LILACS, MEDLINE, SciELO y BDENF y BBO), utilizando las palabras clave "diabetes mellitus" y "curativo". Durante la reunión, hubo 6 temas: 1 LILACS, 3 en MEDLINE, 1 en SciELO y 1 en BBO. Los datos obtenidos fueron esquematizados en un cuadro para una mejor visualización y comprensión. Según la encuesta, la mayoría de estudios se encuentra en MEDLINE (50,0%) en el año 2008 (50,0%), producido por profesores titulados (100,0%), utilizando el estudio de descriptivos (50,0%) y un enfoque cuantitativo (83,3%). Los temas tratados fueron el tratamiento de úlceras en pacientes con diabetes (66,7%) y los factores influyentes para la cicatrización de heridas (33,3%), entre ellos la diabetes mellitus. En el lugar de publicación, 50,0% eran del estado de Sao Paulo y 50,0% en el extranjero. La diabetes es un factor de riesgo importante para el desarrollo de las lesiones y su influencia en el proceso de cicatrización, agravando el estado del paciente y contribuir a la cronicidad de estas lesiones, cambios en los patrones de morbilidad en estos individuos.

PALABRAS CLAVE: diabetes mellitus, la cicatrización de heridas, la revisión, de enfermería

A INFLUÊNCIA DO DIABETES MELLITUS NA CICATRIZAÇÃO DE FERIDAS: UM ESTUDO DE REVISÃO

RESUMO

Diabetes mellitus é causada por desordem metabólica na secreção e/ou ação da insulina, pela hiperglicemia e/ou hiperinsulinemia, que pode influenciar na cicatrização das lesões. Para tanto, é necessária uma visão holística dos aspectos que influenciam no processo cicatricial, como o controle da patologia de base (hipertensão, diabetes mellitus), fatores nutricionais, infecciosos, medicamentosos e, sobretudo, o tratamento e a prevenção de novas lesões. O objetivo deste artigo de revisão é caracterizar a produção científica, publicada na Biblioteca Virtual em Saúde (BVS), sobre a influência do diabetes mellitus na cicatrização de feridas, quanto a autoria das pesquisas, ano de publicação, categoria dos autores, tipo de estudo e abordagem, assunto relacionado a temática, periódico publicado e local de pesquisa. A pesquisa é do tipo descritivo (revisão bibliográfica) e abordagem quantitativa, realizada na BVS (LILACS, MEDLINE, SCIELO, BDENF e BBO), utilizando-se os descritores “diabetes

mellitus" e "cicatrização de feridas". Durante a coleta, foram encontrados 6 artigos: 1 na LILACS, 3 na MEDLINE, 1 na SCIELO e 1 na BBO. Os dados coletados foram esquematizados em um quadro para melhor visualização e compreensão. Segundo a pesquisa realizada, a maioria dos estudos estava localizada na MEDLINE (50,0%), no ano de 2008 (50,0%), produzidos por docentes de pós-graduação (100,0%), utilizando-se do estudo descritivo (50,0%) e abordagem quantitativa (83,3%). Os assuntos abordados foram o tratamento de úlceras em pacientes com diabetes (66,7%) e os fatores influentes para cicatrização de feridas (33,3%), dentre eles a diabetes mellitus. Em relação aos locais de publicação, 50,0% foram Estado de São Paulo e 50,0% no exterior. O diabetes é importante fator de risco para o desenvolvimento de lesões e influencia no processo cicatricial, agravando o estado geral do paciente e contribuindo para a cronicidade dessas feridas, alterando os padrões de morbidade desses indivíduos.

PALAVRAS-CHAVE: diabetes mellitus, cicatrização de feridas, revisão, enfermagem

PUBLICAÇÃO NO FIEP BULLETIN ON-LINE: http://www.fiepbulletin.net/80/a2/72