



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

INTEGRATIVE REVIEW ARTICLE

CARE TO MASTECTOMY WITH AXILLARY LYMPHADENECTOMY, LYMPEDEMA PREVENTION: AN INTEGRATIVE REVIEW

O CUIDADO À MASTECTOMIZADA COM LINFADENECTOMIA AXILIAR, PREVENÇÃO DE LINFEDEMA: REVISÃO INTEGRATIVA

ATENCIÓN A LA MASTECTOMÍA CON LINFADENECTOMÍA AXILAR, LINFEDEMA PREVENCIÓN: UNA REVISIÓN INTEGRADORA

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ABSTRACT

Objective: to examine the care provided to women affected by breast cancer and who has performed axillary lymphadenectomy. **Method:** integrative review conducted in the databases LILACS and PubMed between 2000 and 2012, leaving the question << What care is provided to prevent lymphedema in women who underwent lymphadenectomy? >> Resulting in 18 articles, analyzed under the following variables: author, title, methodology, year, journal, goal, prevention and control of lymphedema therapies and adherence to rehabilitation. **Results:** three categories are identified for rehabilitation of patient: prevention and control, therapies and adherence. **Conclusion:** preoperative is poorly addressed by; emphasizes the importance of home visits as part of rehabilitation, which is effective with the accession of the patient who needs information for its follow-up, no need for a guideline for this type treatment. **Descriptors:** Excision of Lymph; Breast Neoplasms; Rehabilitation; Women's Health; Nursing Care.

RESUMO

Objetivo: analisar os cuidados prestados à mulher acometida por câncer de mama e que tenha realizado linfadenectomia axilar. **Método:** revisão integrativa realizada nas bases de dados LILACS e PubMed, entre 2000 e 2012, partindo da questão <<Quais cuidados são prestados para evitar linfedema em mulheres que realizaram a linfadenectomia?>> resultando em 18 artigos, analisados sob as variáveis: autor, título, metodologia, ano, revista, objetivo, prevenção e controle do linfedema, terapias e adesão à reabilitação. **Resultados:** identificou-se três categorias para a reabilitação da paciente: prevenção e controle, terapias e adesão. **Conclusão:** o pré-operatório é pouco abordado pela equipe; ressalta-se a importância da visita domiciliar como parte da reabilitação, sendo esta efetiva com a adesão da paciente, que necessita de informações para seu seguimento; há necessidade de um *guideline* para este tipo de tratamento. **Descritores:** Excisão de Linfonodo; Neoplasias da Mama; Reabilitação; Saúde da Mulher; Cuidados de Enfermagem.

RESUMEN

Objetivo: analizar la atención a las mujeres afectadas por cáncer de mama y que ha realizado la linfadenectomía axilar. **Método:** revisión integradora realizada en las bases de datos LILACS y PubMed entre 2000 y 2012, dejando la pregunta << ¿Qué atención se proporciona para prevenir el linfedema en mujeres que se sometieron a la linfadenectomía? >> resultando en 18 artículos, analizados en las siguientes variables: Autor, el título, la metodología, el año, la revista, el objetivo, la prevención y el control de las terapias linfedema y la adherencia a la rehabilitación. **Resultados:** tres categorías se identifican para la rehabilitación del paciente: prevención y control, tratamientos y adherencia. **Conclusión:** preoperatorio es poco abordado por, hace hincapié en la importancia de las visitas domiciliarias como parte de la rehabilitación, que es eficaz con la adhesión del paciente que necesita la información para su seguimiento, sin necesidad de una guía para este tipo tratamiento. **Descriptor:** Escisión de la Linfa; Los Tumores de Mama; La Rehabilitación; La Salud de la Mujer; La Atención de Enfermería.

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INTRODUCTION

Breast cancer represents an important public health problem when we consider that in 2008, 23% of breast cancers were diagnosed. In Brazil, it is estimated to be approximately 52,680 new cases in 2012.¹

For the surgical techniques and radiotherapy are available for locoregional treatment. The surgical procedure is determined on the classification of the tumor (TNM), it may be conservative (serorectomia, enlarged lumpectomy or quadrantectomy) with or without lymphadenectomy, in this case uses the technique of sentinel lymph node or non-conservative (mastectomy).²

In 64% of breast tumors smaller than 2 cm and in 42.3% of tumors 2-5 cm in diameter, axillary lymph node chain was free of metastatic involvement. Given this result it was concluded that lymphadenectomy in those cases would be avoided by decreasing the consequent comorbidities surgery.³ Major postoperative complications of axillary dissection early and late reported involve pain, seroma, infection, lymphedema, and sensory.⁴

The confirmation of the absence of axillary lymph nodes is given by sentinel lymph node biopsy. This method allows the study of the first lymph node to receive drainage of metastatic cells, to be identified is related to prognosis, adjuvant therapy setting and selecting those patients who actually require the lymphadenectomy.⁵

The number of women who perform the axillary dissection and reports its result is still high. In a study analyzing the medical records of 454 women who underwent mastectomy, 79.1% reported onset of lymphedema and possibly associated with this condition is pain, burning sensation, muscle strength and breadth of the member committed.⁶ Perimetry with more than 1 inch of difference between the upper at some point it is possible to be diagnosed with lymphedema.⁷

Lymphedema can be avoided with adequate preoperative procedures, and though the moments that precede the operation represent fear and apprehension for the patient, it is extremely important that guidelines are passed on their postoperative (PO) as well as the emotional aspects of extirpation of breast this time. Such approaches would avoid postsurgical complications arising from lack of knowledge of the patient.⁸

We highlight the importance of knowing the patient about their disease, and social

support, and multi-family. There is also the indispensable performance of the nurse and the use of teaching-learning.⁹

The aim of the present study is to analyze the care provided to women affected by breast cancer who had performed axillary dissection.

METHOD

It is an integrative review, where the theme refers to the care provided to women affected by breast cancer and who has performed axillary lymphadenectomy. In order to guide the research, formulated the following question: What care is provided to prevent lymphedema in women who underwent lymphadenectomy? Therefore, this work aimed to organize, in a systematic and orderly manner, the results of the research.

In this type of research the reviewer aims to make a critical selection of texts and evaluate the criteria and methods used by the authors to determine the methodological validity, which causes the reduction of the number of surveys included in the final stage of the review. It aims to achieve this methodology with a deep knowledge about the given topic, defining clearly the presentation of results obtidos.¹⁰

The development of this integrative review, we used six distinct steps: identifying the topic and research question to conduct the review; establishing criteria for inclusion and exclusion of articles; definition of the necessary information; evaluation of full texts, and interpretation of results and conclusion.¹⁰

The survey was conducted during March 2013, which was used as inclusion criteria the articles on your topic brought physical rehabilitation after surgery, as well as guidance and post-surgical passed by healthcare professionals, published in English or Portuguese and ranging from 2000 to 2012. It was considered as an exclusion criterion items not addressed therapeutic processes of rehabilitation after breast surgery.

For select descriptors carried out a consultation with DECS (Descriptors in Health Sciences), resulting in: "lymphedema", "lymphadenectomy", "prevention", "control", "care" and "mama" in LILACS and "lymphedema", "prevention" and "control", "postoperative care" in PubMed.

The search was performed by databases of Latin American and Caribbean Health Sciences (LILACS) and PubMed, totaling 31 publications in LILACS and 7 publications in PubMed. Subsequently, we selected publications that

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met the inclusion and exclusion criteria previously defined, resulting in 14:03 for review articles, LILACS and PubMed, respectively.

After selection of items based on the criteria of inclusion and exclusion, began reading the abstracts and full texts of the later aiming to answer the guiding questions.

For data collection, we used an instrument which addresses the following variables: author, title, methodology, year of publication, magazine publication, purpose of the research, prevention and control of lymphedema therapies and adherence to rehabilitation. This analysis was based the development of categories of analysis: (1)

Care to mastectomy with axillary lymphadenectomy...

prevention and control, (2) treatment and (3) adherence to treatment.

For data evaluation aspects were observed that responded the guiding question, the aspects that affect the quality of life, team performance and type of study. The presentation and discussion of the results is given from the descriptive analysis of these data (Figure 1, 2 and results). All items remained the impartiality of results, discussion and conclusions.

RESULTS

The articles are organized in Figure 1 and 2.

Author	Title / Journal /Publication year	Objective	Methodology
Leal TO, Cardoso KQ, Kalif SK, Almeida FB, Fontelles MJ	A fisioterapia no linfedema pós-mastectomia a madden / Rev Para Med / 2004	Assess the importance as a treatment to be used to prevent lymphedema after radical mastectomy.	Cohort study
Rezende LF, Beletti PO, Franco RL, Moraes SS, Gurgel MS	Exercícios livres versus direcionados nas complicações pós-operatórias de câncer de mama / Rev Assoc Med Bras / 2006	To evaluate the association between the type of exercise physiotherapy and incidence of lymphedema after lymphadenectomy.	Clinical trial
Bergmann A, Pereira TB, Ribeiro ACP, Bourrus N, Silva JG	Prevalência de patologias de ombro no pré-operatório de câncer de mama: importância para a prevenção de complicações / Fisioter Bras / 2007	To evaluate the prevalence of previous changes to the shoulder in women with indication lymphadenectomy.	Epidemiological study
Carvalho APF, Azevedo EMM	A fisioterapia aquática no tratamento do linfedema pós-mastectomia / Femina / 2007	Verify the applicability of aquatic therapy in the treatment of lymphedema.	Clinical trial
Garcia LB, Guirro ECO	Efeitos da estimulação elétrica de alta voltagem no linfedema pós-mastectomia bilateral: estudo de caso / Fisioter Pesqui / 2007	Analyze the effects of high voltage electrical stimulation in post-mastectomy lymphedema bilateral.	Case Study
Souza VP, Panobianco MS, Almeida AM, Prado MAS, Santos MSM	Fatores predisponentes ao linfedema de braço referidos por mulheres mastectomizadas / Rev Enferm UERJ / 2007	Identify the reasons mentioned by the emergence of mastectomy lymphedema.	Exploratory and descriptive study
Jammal MP, Machado ARM, Rodrigues LR	Fisioterapia na reabilitação de mulheres operadas por câncer de mama / Mundo saúde / 2008	Highlight the effectiveness of physiotherapy after breast surgery.	Literature review
Oliveira J, César TB	Influência da fisioterapia complexa descongestiva associada à ingestão de triglicerídeos de cadeia média (TCM) no tratamento do linfedema de membro superior / Rev Bras Fisioter / 2008	Check the association between decongestive physiotherapy and diet therapy with TCM intervention on the upper limb lymphedema.	Clinical trial
Valente FM, Godoy MFG, Godoy JMP	Força de preensão palmar em portadoras de linfedema secundário ao tratamento para câncer de mama / Arq Ciênc Saúde / 2008	Identify changes in muscle strength in the distal upper limb linfedematoso.	Epidemiological study
Leal NFBS, Carrara HHA, Vieira KF, Ferreira CHJ	Tratamentos fisioterapêuticos para linfedema pós câncer de mama: uma revisão de literatura / Rev Latinoam Enferm / 2009	Present physiotherapy modalities to the treatment of lymphedema.	Literature review
Panobianco MS, Parra MV, Almeida AM, Prado MAS, Magalhães PAP	Estudo da adesão às estratégias de prevenção e controle do linfedema em mastectomizadas / Esc Anna Nery Rev Enferm / 2009	Identify adherence to strategies for prevention and treatment of lymphedema and relate them to the occurrence of edema.	Cross-sectional study of quantitative analysis
Panobianco MS, Souza VP, Prado MAS, Gozzo TO, Magalhães PAP, Almeida AM	Construção do conhecimento necessário ao desenvolvimento de um manual didático-instrucional na prevenção do linfedema pós-mastectomia / Texto & contexto enferm / 2009	Build knowledge to develop manual for prevention of lymphedema in women with mastectomies.	Qualitative field research
PARRA MV, Panobianco MS, Prado MAS, Almeida AM, Franco AHJ, Vendusculo LM	Visita domiciliar a mulheres com câncer de mama: uma estratégia a ser resgatada / Ciênc Cuid Saúde / 2010	Report the experience of university extension activities on gynecological cancer and breast to their carriers and family.	Study retrospective
Nascimento SL, Oliveira RR, Oliveira MMF, Amaral MTP	Complicações e condutas fisioterapêuticas após cirurgia por câncer de mama: estudo retrospectivo / Fisioter Pesqui / 2012	Identify the most common complications and more physical therapy procedures adopted.	Study retrospective

Figure 1. Studies selected, LILACS.

Author	Title / Journal / Publication year	Objective	Methodology
Lacovara JE, Yoder LH	Secondary lymphedemain the cancer patient / Medsurg Nurs / 2006	Talk about lymphedema, its diagnosis, treatment and prevention.	Literature review
Lee TS, Kilbresth SL, Sullivan G, Refshauge KM, Beith JM	Patient perceptions of arm care and exercise advice after breast cancer surgery / Oncol Nurs Forum / 2010	Describe the experiences of women who received guidance on aftercare breast surgery.	Epidemiological study qualitative
Sanchez AMC, Lorenzo CM, Peñarrocha MGA, Ferrándiz AME, Céspedes AI, Ojeda AJ	Preventing lymphoedema after breast cancer surgery by elastic restraint orthotic and manual lymphatic drainage: randomized clinical trial / Med Clin (Barc) / 2011	Analyze the effectiveness of containment elastic orthosis and manual drainage in preventing lymphedema secondary to mastectomy.	Randomized clinical trial

Figure 2. Studies selected, Pubmed.

Although we have included as publication date since 2000, the selection of articles that showed the scientific theme of this year occurred mainly between 2004 and 2012.

DISCUSSION

This study aimed to analyze the care provided to women affected by breast cancer who had performed axillary dissection in order to avoid or minimize the occurrence of lymphedema.

For a better presentation of the discussion, we categorize the main findings in the literature: prevention and control, and treatment adherence rehabilitation.

◆ Prevention and control:

The prevention of lymphedema begins preoperatively through guidance of health professionals in relation to body posture that we should adopt the postoperative (PO) and the importance of continuing treatment with rehabilitation.^{10, 11} At this point it is important to evaluate the presence of any joint alteration, for example arthritis,¹² that influence the development of their recovery.

The preventive treatment after surgery, the absence of a guideline, guidelines that would define what are the appropriate physical therapy to women who underwent surgical treatment of breast cancer, helps to make the protocol adopted, different in each institution, subject to mistakes and successes as well as demonstrated in a study in a rehabilitation center where exercises of flexion, extension, abduction, adduction, internal and external rotation monitored not represented significant prevention of lymphedema, although women have been advised not to confine themselves in household chores.¹³

Home visits were identified as important action for the recognition of the patient, their family and their social status in order to reintroduce it to the service, as well as their adherence to treatment and self-care.⁶ This practice allows such aspects to not be lost because it sporadically can be forgotten in the clinic visit.¹⁴

The condition of overweight and obesity presented as a predisposing factor the

lymphedema, hence the weight loss was important in preventing or less comorbidity frame,^{15,16} to consider that the lymphatic return is hampered in patients with large amounts of adipose tissue.¹⁷ Underscoring, thus the importance of proper nutrition.¹⁸

In order to promote the prevention and control of lymphedema through awareness and self-care, vision health professionals, it should be clear to the patient the functioning of the lymphatic system and lymphedema, how to identify such occurrence, risk factors, which are optional therapies and consequences and explain why each guideline language is congruent with the population.¹³ The following specified risk factors are important to be mentioned: take shot on the arm, to take care cuticle, hypertension, physical inactivity, poor skin hydration, not sunscreen use, perform self massage without quality, banding and sleeve use without professional guidance as and catch weight.^{16,18-20}

The distribution of manuals and booklets with instructions for prevention of lymphedema has been adopted by institutions for rehabilitation of women with mastectomies.^{13,19} The adoption of this intervention to raise awareness of a population provides significant results.²²

◆ Therapies

During the postoperative period from day 0 to day 15, the ipsilateral shoulder joint mobility (flexion, abduction and external rotation of the shoulder) surgery should be limited, simple, dynamic, self-massage to stimulate the lymphatic drainage , the latter indicating from the first postoperative day. After the 15th postoperative day, the range of motion should not be restricted and should be taken in the shortest possible time. The referral to physiotherapy sessions is important in the rehabilitation of the shoulder girdle and the reordering from limb with the rest of the body,^{10,19} reflecting the improved ability of

functional performance in daily activities of patients.²³

Electrical stimulation has been used in clinical practice as a resource for reducing edema.^{24,25} In the study, 14 sessions using a high voltage current, there was a decrease of 8.53% of the volumetric member.²⁴

Along with conventional physical therapy interventions drainage manual, compression bandage or elastic restraint, increasing 20 to 60mmHg the pressure on the limb,^{15,24} kinesiotherapy¹⁹ and skin care, has been associated with diet therapy with medium-chain triglycerides. This is explained by use of medium-chain triglycerides not absorbed by the intestinal lymphatic system, which does not occur with other types of oil such as long chain fatty acid (LCFA, vegetable oil) that is transported to the lymphatic system causing overcharging. In the study group using medium-chain triglycerides complex decongestive physiotherapy showed associated with greater reduction in the lymphedema.¹⁵

The aquatic therapy has emerged as a therapeutic option compared to traditional therapy soil, since self-massage, active stretching, strengthening exercises and general relaxation combined with hydrostatic pressure, responsible for opposition to the tendency of liquids accumulate in the extremities, decreasing edema. However, the study demonstrated no significant difference between the two therapies.⁷

The therapies used are more complex decongestive therapy, it consists of two phases: the first aims to reduce maximum edema while the second is the maintenance and use of elastic restraint beyond the maintenance of self-massage skin care. Pneumatic compression represents a high financial cost, not showing more significant results compared to the other techniques and is contraindicated for patients with cellulitis or deep venous thrombosis,²⁶ high voltage electrical stimulation and laser therapy, however, there is more effective results when therapies are combined.²⁵

The research of hand grip strength exercises demonstrated that contraction of the muscles responsible for venolymphatic limb pumping favors the reabsorption of interstitial fluid, resulting in the reduction of edema as well as maintaining compromised muscle strength.^{20,27}

♦ Adherence to Rehabilitation

Although the patients know the guidelines on how to prevent lymphedema, there were reports of noncompliance with treatment because of laziness, impatience and

forgetfulness.²⁰ Adherence to practice prevention and minimization of lymphedema, a condition that brings weakness, lack of self-esteem and embarrassment to women,²⁸ starts when it is known its mechanism and how the treatment acts in this process.

Women with lymphedema reported their emergence installed due to overexertion, the actual surgery, radiation, excessive heat, lack of guidance on the prevention and problems with the drain. While acknowledging some predisposing factors to lymphedema, it still shows up outdated knowledge about the risks to which they are vulnerable, and this is the cause of their exposure.²⁹

The perception of the patient's lack of sensitivity and empathy improper and conflicting guidelines and represent factors that alienate the patient's rehabilitation treatment.¹⁹

CONCLUSION

Non-adherence of the patient to the proposed treatment is due to lack of awareness of the severity and consequences of the installation of lymphedema. Reinforced, thus, the importance of passing on information to patients about the pathophysiology of this condition, and should be guided in their daily activities.

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Hamaji MP, Sousa FH, Oliveira Júnior VA de et al.

Care to mastectomy with axillary lymphadenectomy...

Submission: 2013/04/03
Accepted: 2014/02/15
Publishing: 2014/03/01

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