

Chronic Hypertensive Chest Lymphedema after Breast Cancer Treatment: A Case Report

This article was published in the following Scient Open Access Journal:

Women's Health & Gynecology

Received April 09, 2017; Accepted August 14, 2017; Published August 21, 2017

Henrique Jose Pereira de Godoy¹, Damla Atac², Maria de Fatima Guerreiro Godoy OT³ and Jose Maria Pereira de Godoy^{4*}

¹Medicine Student at the Universidade Federal do Mato Grosso Cuiabá, MT and researcher of the Clínica Godoy, Sao Jose do Rio Preto, SP

²Exchange student at the Clínica Godoy, Sao Jose do Rio Preto, SP

³Occupational Therapist, Professor in Course Post Graduation in Medicine School of Sao Jose do Rio Preto (FAMERP) and Research Godoy Clinic, Brazil

⁴Department of Cardiology and Cardiovascular Surgery in Medicine School in Sao Jose do Rio Preto (FAMERP), and Research CNPq (National Council for Research and Development), Brazil

Abstract

Aim: The aim of this study is to report on the reduction of breast cancer-related chest lymphedema associated with lymphatic hypertension and pain using Manual Lymphatic Therapy. Case report: We report on the case of a 52-year-old female patient, who developed breast and chest edema in November 2014 following breast reconstruction surgery performed immediately after mastectomy. The patient reported that she was submitted to 20 weekly chemotherapy sessions. She arrived at the Clínica Godoy in Sao Jose do Rio Preto to treat lymphedema in August 2015. The patient stated that she had noted the edema after surgery in the region of breast implant, and pain (analog scale 7) that was uncomfortable when she laid down at night to sleep and limited her daily life activities and work. Daily sessions of an adapted Manual Lymphatic Therapy technique (Godoy & Godoy method) for ten days was proposed. Bioimpedance was used at the start and end of treatment to evaluate the edema.

Conclusion: The adaptation to lymphatic therapy significantly reduced the edema and consequently the pain without risking further impairment of the lymphatic system.

Keywords: Lymphedema, Lymphatic therapy, Godoy method, Breast cancer

Introduction

Breast cancer affects millions of women worldwide; it is the second most common malignancy after skin cancer. It represents 25% of all types of cancers affecting women, and is the leading cause of cancer-related death in women worldwide [1].

Lymphedema is a major complication in the treatment of breast cancer [2]. Lymphedema is a clinical condition in which there is an accumulation of fluid and macromolecules in the interstitial space resulting from mechanical or dynamic changes of the lymphatic system [3].

The dissection of axillary lymph nodes leads to obstruction of the lymph collectors that drain into the corresponding lymph nodes, a condition that can cause hypertensive lymphedema of the chest and arms [4].

A combination of different therapies is recommended in the treatment of lymphedema including manual and mechanical lymph drainage, bandaging, personal hygiene care, myolymphokinetic exercises and activities and medications [5].

The diagnosis is usually clinical and involves taking a detailed clinical history and physical examination. The clinical history is defined by the onset of swelling, the evolution of the disease, the occurrence of erysipelas and other factors that affect the lymphatic system. In addition to a specific evaluation of the edema, other assessments are recommended in respect to the patient's posture, body mass index (BMI), pain, activities of daily life and limb mobility [1-5].

Volumetry and perimetry are used to evaluate lymphedema and bioimpedance can be used to measure lymphedema in different regions of the body [6].

The aim of this study is to report on the reduction of volume and consequently a reduction in pain in breast cancer-related chest lymphedema treated by an adaption of Manual Lymphatic Therapy developed by Godoy & Godoy.

*Corresponding Author: Jose Maria Pereira de Godoy, Av. Constituicao, 1306, Sao Jose do Rio Preto, SP, CEP: 15025120, Fax: 5517-32326362, Email: godoyjmp@gmail.com

Case Report

The case of a 52-year-old female patient is reported. The patient evolved with breast edema after quadrantectomy associated with axillary dissection to treat breast cancer in November 2014. Subsequently, she was submitted to 20 weekly sessions of chemotherapy. She sought the Clinica Godoy to treat swelling and pain of the breast in August 2015. She observed edema in the region of the breast associated with pain after the surgery. The pain, which she evaluated numerically as Score 7 using a pain analog scale, mainly bothered her at night when she laid down to sleep but also limited her activities of daily living and work as she was required to make repetitive hand movements. She received advice about controlling the intensity and degree of movements together with resting every hour, however this strategy was not effective to relieve the pain.

Daily sessions of Manual Lymphatic Therapy (Godoy & Godoy method) adapted to the pathophysiology of this patient for ten days was proposed. The technique involved gentle manual compression in the breast region being careful not to cause more pain. More therapy time was spent in the regions of most pain, but the entire breast was treated using this technique. The edema was evaluated clinically and a visual analogue scale was used to assess the pain before and after each therapeutic session. There were improvements in the pain, swelling and mobility of the arm from the first session. The pain reduced from an intensity of Score 7 to 1 on the analog pain scale during the first session. However, the pain had increased to Score 6 on the visual analogue scale at the start of the second session before again dropping by the end of the session. At the start of the third session, the pain had increased to Score 3 but the patient no longer complained of pain after the fourth session. The edema was normalized during this period.

Discussion

This study reports on a case of a patient submitted to a quadrantectomy associated with axillary dissection to treat breast cancer. She developed pain and swelling in the breast that limited mobility of the arm and discomfort that affected her quality of life. A lymph drainage technique based on systematic manual compression adapted to the pathophysiology of axillary dissection was used which resulted in the reduction of edema and pain [4]. No publications that report the use of this type of technique to treat breast lymphedema with an immediate reduction in edema and pain were found in the literature.

What is important here is the care required after axillary dissection because of the immediate blockage of the lymphatic circulation caused by this procedure, with evolution to lymphatic hypertension in the collectors affected by the surgery. Affected collectors cannot be stimulated during manual lymph drainage and the drainage technique needs to be adapted to the pathophysiology of this clinical condition.

Godoy and Godoy created an adaptation of the lymph drainage technique for these patients, in which gentle manual compression is used, which, in theory, increases local pressure in the interstitial space leading to the formation of lymph. No linear displacement, as generally recommended by the Godoy and Godoy technique in patients without axillary dissection, should be used [4]. A pressure of 30-40 mmHg (evaluated subjectively) is suggested but the pressure should not cause pain.

In the authors' experience, the pain may move during therapy. It is common for patients to report that the pain "changes positions" during treatment. This is important, as it is necessary to redefine the region of the breast to receive the greatest amount of attention, as the region with most pain should be the focus of treatment. This pain usually disappears entirely or almost entirely during therapy, as was observed in the current case report. Generally, as the edema reduces, the pain also diminishes.

This case serves as a warning about lymphedema of the breast that may affect the chest and the arm. What draws attention in these cases is that the pain of the breast is very strong, much more so than is usually seen in lymphedema of the chest and arm. Pain is a common complaint in patients after breast reconstruction using implants; this approach to breast reconstruction is recommended by the international media and so the adequacy of the technique to treat patients should be reconsidered. The lymph drainage technique used in this study should normalize or nearly normalize pain during therapy.

Conclusion

Hypertensive breast lymphedema is a medical condition that requires an adaptation of the manual lymph drainage technique. This condition is more painful than lymphedema of the limbs. The adaptation of lymphatic therapy reported herein significantly reduces pain and edema.

References

1. Siegel R, Naishadham D, Jemal A. Cancer statistics. *CA Cancer J Clin*. 2012;62(1):10-29.
2. Lee BB, Andrade M, Antignani PL, et al. Diagnosis and Treatment of Primary Lymphedema. Consensus Document of the International Union of Phlebology (IUP)-2013. *Int Angiol*. 2013;32(6):541-574.
3. de Godoy JM, de Godoy Mde F. Godoy & Godoy technique in the treatment of lymphedema for under-privileged populations. *Int J Med Sci*. 2010;7(2):68-71.
4. Godoy JMP, Godoy ACP, Godoy MFG. Manual Lymphatic Therapy: Godoy & Godoy Concept. TSH Editora. 2013. E-Book: www.amazon.com
5. de Godoy JM, Godoy Mde F. Evaluation of a new approach to the treatment of lymphedema resulting from breast cancer therapy. *Eur J Intern Med*. 2013;24(1):59-62.
6. Kim L, Jeon JY, Sung IY, et al. Prediction of treatment outcome with bioimpedance measurements in breast cancer related lymphedema patients. *Ann Rehabil Med*. 2011;35(5):687-693.