Guideline for complexity treatment of lymph edema

Abstract
Lymphedema (LE) is a potential side effect of breast or other types of cancer surgery and radiation therapy, that can appear in some people during the months or even years after treatment ends. The purpose of our research was to do a research on all possible ways of dealing with the lymphedema, and then to conceive the guide, which in our environment does not exist.

Material and method: We have made one research on medical data base with key words: lymphedema, complex treatment, education for patients and their effect on patient quality of life. We have checked 171 studies. All studies consulted in our research were published in a book in 2017 with title: Lymphedema and integrative medicine. Results: treatment of LE is part of modern treatment of cancer patient and complexity treatment gives best results on QOL in patients with cancer in subacute and chronic stage.

Discussion: The treatment became actual, with the increase of cancer in the population, with localization in breast, prostate and regions of small pelvis and neck. Treatment of LE can be managed in industrial and rural areas of population. Team of treatment consists of physiatrist and physiotherapist specialized for LE treatment.

Conclusion: Complexity treatment of lymphedema is part of treatment for patient with cancer worldwide. The management plane has benefits for patients but it misses educated physiotherapist for MLD, and the impossibility of the patient to pay treatment.

Keywords: lymph edema, complexity treatment, breast cancer, chronic stage, patients, nutrition

Introduction
Lymphedema is a potential complication of surgical or radiation therapy in cancer patients, especially breast cancer. It may take a while before it appears but after years or months the symptoms will appear. Due to surgery, many people with breast cancer have few of their lymph nodes removed from the armpit region. Surgery and radiation can obstruct or damage some of the nodes and vessels through which the lymph moves. In time, the flow of lymph will overwhelm the rest of the pathways, which will result in a backup of fluid in the tissues. Early detection is complicated because the symptoms tend to be subtle. A visible change of 2 centimeters in circumference of the arm may suggest that lymph edema is developing but you also may not notice it at all.

Lymphedema usually happens in phase but some patients may develop it suddenly. It usually looks like the hand, arm and other body parts, blow up in size. Also infection, a blood clot or recurrence of the cancer should be excluded by the doctor. Complexity treatment of lymphedema contains activities of special team for treatment-Center for lymphedema treatment and education for patient to guide with it. The purpose of our research was to do a research on all possible ways of dealing with the lymphedema, and then to conceive the guide, which in our environment does not exist.

Material and method
We have made one research on medical data base with key word: lymph edema, complex treatment, education for patients and their effect on patient quality of life.

We have checked 430 studies, and effects divided in follow parts:
a) Anatomy and path physiology of lymphedema
b) Treatment with manual lymph drainage
c) Device for lymph edema treatment
d) Compression with elastic bandage or sleeve
e) Application of functional tape
f) Diet and nutrition
g) Self exercises for patients
h) Measurement and evaluation of effect of treatment

All studies consulted in our research were published in a book in 2017 with title: Lymphedema and integrative medicine.

Results
All methods were analyzed in the following steps: application, dosage, positive effects, and evaluation of significance, all of which is showed in Table 1.
Table 1 Complexity treatment of LE

<table>
<thead>
<tr>
<th>Method</th>
<th>Application</th>
<th>Dosage</th>
<th>Evaluation</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLD⁴⁶</td>
<td>Special manipulation</td>
<td>1-2 weekly, during the life, 30 min.</td>
<td>Size of limb or arm</td>
<td>Decrease size of edema, painless, better QOL⁶</td>
</tr>
<tr>
<td>DLD⁴⁷</td>
<td>Special cuffs for limbs, stomach and arm</td>
<td>1-2 weekly, during the life, 30 min.</td>
<td>Size of limb or arm</td>
<td>Decrease size of edema, painless, better QOL⁶</td>
</tr>
<tr>
<td>Elastic cuff³</td>
<td>During the day</td>
<td>Permanent</td>
<td>Size of limb or arm</td>
<td>Maintains reduction of edema</td>
</tr>
<tr>
<td>Elastic bandages ⁰</td>
<td>During the day and night</td>
<td>Permanent, to the next MLD or DLD</td>
<td>Skin and edema after application, and before next MLD or DLD</td>
<td>Maintains reduction of edema</td>
</tr>
<tr>
<td>Functional type¹⁰</td>
<td>During the day and night</td>
<td>Permanent, to the next MLD or DLD</td>
<td>Skin and edema after application, and before next MLD or DLD</td>
<td>Decrease size of edema, continual during application</td>
</tr>
<tr>
<td>Nutrition¹¹</td>
<td>Diet less of salt, sugar, high sutured lipids, rich with fruits and vegetables contain potassium.</td>
<td>Permanent like a life style</td>
<td>Size of edema</td>
<td>Decrease size of edema</td>
</tr>
<tr>
<td>Exercises¹²</td>
<td>Exercises with effect of reduction of edema by muscle pump.</td>
<td>Every day, in the afternoon or before going to sleep.</td>
<td>Mobility of joint, size of edema.</td>
<td>Decrease pain, edema, better QOL</td>
</tr>
</tbody>
</table>

Discussion

Treatment of lymphedema has its origin, but it has been established as a therapy since 1930 by Danish biologist Emil Voder and his wife Estrid, a physiotherapist, who worked at the Physical Institute therapy of the French Riviera. They came to certain insights about the treatment of lymphedema. They had the success of reducing the lymphedema in patients treated with light massage after which the withdrawals receded and patients recovered faster than normal primary disease. After many years of work this technique developed, and in 1936 in Paris the exhibition titled “Beauty and Health presented it as a new discovery in the treatment of edematous tissues.”¹³

The treatment actually became needed with the increase of cancer in the population and also the survival rate of cancer due to the modern treatment especially for the ones located in the breast, prostate, neck and small pelvis.¹⁴ The standard in cancer surgery also includes the removal of lymphatic structures. Radiation therapy is also a way of treatment that can damage the lymph vessels.¹⁵,¹⁶ The medical care for patients does not continue when they get back home.

Treatment of lymph edema can be managed in two ways. In some developed countries there are special centers for treatment of lymph edema, with team consisting since 1930, doctor, specialist for rehabilitation of cancer patient, physiotherapist specialized for manual lymph drainage, Nutritionists’ and physiotherapist in gymnastic hall for exercises.¹⁷ In small societies and rural areas it can be organized like a community-based rehabilitation, with individual treatment at home or in societies of patients with cancer. Treatment in this model can be guided by doctor and applied from physiotherapist educated for treatment of lymphedema.¹⁸

Programs for treatment of lymphedema are accepted from medical experts worldwide and its implementation in medical models for health care of high economy countries.¹⁹,²⁰ In our health system, application of DLD is on health care, and patients participate for one daily treatment 1 euro, but MLD, is on their own payment.

The bandages and Elastic cuff are on their own payment and cost more than 20 euro, and it is a problem for application, according standard of patient.²¹

Conclusion

Complexity treatment of lymph edema is part of treatment for patients with cancer worldwide. Our Guideline have analyzed of its application, dosage, evaluation of effect and how to manage in society. The management plane has benefits for patients, but lacks educated physiotherapists for MLD, and impossibility of patients to pay treatment.

Acknowledgments

None.

Conflict of interest

Author declares no conflict of interest.

References


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