

Economic and Social Aspects of Secondary Lymphedema following Treatment of Breast Cancer

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Original Article

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Abstract:

Introduction

The quality of life of female patients who have undergone mentally and physically demanding treatment of cancer is often affected by the emergence of secondary lymphedema. The purpose of our work is to evaluate this complexity not only from an objective but also subjective point of view.

Methods

Qualitative focus study in 18 patients under 60 years of age conducted by way of a structured interview during 2019 at the lymphological workplace.

Results

The economic burden for patients is on the average CZK 683 per month (about \$360 USD per year), the treatment is paid for fully by health insurance companies. Lymphedema is a significant barrier in an occupation, more in women after treatment of the second grade of cancer than the first one. Lymphedema

is a bigger obstacle for women with lower education, physically working. Family status does not have a significant effect on the treatment of cancer.

Conclusions

The study has confirmed the difficulty of treatment of secondary lymphedema after the treatment of breast cancer, both from financial and professional points of view. The medical staff should take into account these factors or expand the rehabilitation team and thus ensure better compliance in therapy.

Introduction

The secondary lymphedema is a common complication of breast cancer treatment. Its incidence increases in parallel with the increasing incidence of breast cancer and the improvement of the prognosis and thus the number of surviving patients. It is repeatedly demonstrated (1.2) that the quality of life of patients who have survived severely mentally and physically difficult treatment of cancer suffer from the development of subsequent lymphedema. The purpose of our work is to evaluate this complexity not only from an objective but also subjective point of view.

Methods

In view of the fact that our goal is to evaluate primarily the subjective burden of patients with secondary lymphedema and to understand the obstacles and facilitators for compliance, possibly adherence, we used a qualitative method of research. The study was conducted in 2019 in a department specialized in the rehabilitation of oncology patients. It included 18 women after treatment of breast cancer treated for secondary lymphedema after the first one. The conditions of acceptance to the study were following: Women had to be younger than 60; before the retirement age. So we evaluated a group of women aged from 27 to 56 years old, with an average age of 45.78 years, a median of 46, a standard deviation of 8.07.

As a method of qualitative research, a focus group was chosen and as a way of obtaining data was chosen a structured conversation which will allow to unify the data obtained from individuals and at the same time to evaluate the subjective perception of reality. This subjective perception of reality was converted into degrees of:

Subjective financial burden by treatment: **1** – minimum **2** – medium **3** – high **4** – hard to manage Lymphedema as an obstacle in an occupation:

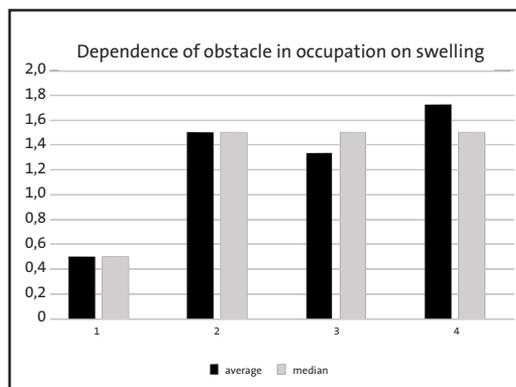
1 – not manifested **2** – mild **3** – severe **4** – impossible to work

Results

Assessing family status: 10 women lived with family; 7 only with a partner; only lived alone. Family status did not affect the overall burden of lymphedema treatment, according to the opinion of the husbands. In relation to profession: 5 women worked physically, 1 was a housewife; 5 were permanently fully disabled; the other 7 worked mentally. All 5 women who were in full disability pension evaluated their lymphedema problems as serious, making it impossible to work because 2 of them originally worked as waitresses, 1 as a nurse and 2 as shop assistants.

The size of lymphedema was measured as the largest difference in circuits and was at least 5 and a maximum of 3 cm, on average 1.5 cm (median 1.5, standard deviation 0.65). Lymphedema was rated as a barrier to work by more serious women after treatment for second grade cancer than the first one. Higher grades cannot be evaluated due to the low frequency.

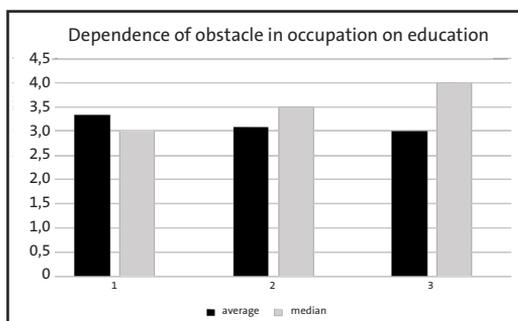
Chart 1: seriousness of obstacle in occupation (1-4) in dependence on size of swelling



The average month cost of treatment for lymphedema in patients was CZK 683 (median 500, standard deviation 433). The treatment was covered by health insurance companies.

The financial difficulty of treatment with lymphedema objectively is slightly lower in women with second grade cancer than with the first one, but subjectively, the financial burden is perceived worse in the second grade than in the first one. Our patients showed a high quality of consumer credit, only two were credited, but not with high credit. The size of the swelling can be considered as an obstacle in occupation, as well as the lower the education, the greater the barrier in occupation.

Chart 2: impact of education on seriousness of lymphedema as an obstacle in occupation



1 – primary + apprenticed
2 – secondary
3 – university

Discussion

In our study, according to the subjective observations of patients, family status does not have a significant effect on the overall burden of lymphedema treatment. According to other authors, this influence is significant (1) both in the field of occupation and in personal life (2). The reason is probably a different economic and cultural environment. The greater impact of lymphedema on women with lower education and therefore physically working our study shows a consensus (3).

The financial cost of treatment for our patients is significantly lower, i.e. \$360 per year compared to financial claims in the US, where it is \$500-\$1215 per year (4): Belgian authors report

the cost of patient-bearing at \$3,325 to \$5,545, the cost of the company is \$1,127 to \$3,165 (5). According to the results of our study, lymphedema is usually a significant barrier to work, which is in conformity with most authors (1.6).

Conclusions

The study has confirmed the difficulty of treatment of secondary lymphedema after the treatment of breast cancer, both from the financial and professional points of view. The problem appears in patients with lower education which means working physically. The physicians, lymph therapists and physiotherapists should take into account these factors and cooperate with psychologists and social workers and provide better psychological and economic comfort for women treated for secondary lymphedema after treatment for breast cancer. In this way, better compliance and adherence in treatment can also be achieved, which is a necessary condition for its effectiveness.

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