

Evaluation of functioning of women after mastectomy using FACT-G scale

Ocena funkcjonowania kobiet po mastektomii na podstawie skali FACT-G

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Wprowadzenie. Rak piersi, to najczęstszy z nowotworów występujących u kobiet, zarówno w Polsce, jak i na świecie. Zaakceptowanie przez chorą takiej diagnozy jest bardzo trudne; zostaje zaburzona równowaga w sferze psychicznej, fizycznej i społecznej. Całkowite usunięcie gruczołu piersiowego prowadzi do okaleczenia ciała kobiety. Brak atrybutu kobiecości i macierzyństwa oraz pojawienie się dolegliwości związanych z leczeniem systemowym wpływa na stan fizyczny i emocjonalny pacjentek.

Cel. Ocena funkcjonowania kobiet po przebytej mastektomii w zakresie stanu fizycznego, stanu emocjonalnego, życia codziennego, rodzinnego i towarzyskiego.

Materiały i metody. Badaniem objęto 100 kobiet po mastektomii z limfadenektomią, w wieku 33-75 lat (średnia wieku: 51,86) leczonych w Wielkopolskim Centrum Onkologii w Poznaniu. Funkcjonowanie kobiet po mastektomii oceniano w okresie do jednego roku po zabiegu na podstawie polskiej wersji skali FACT-G.

Wyniki. Ogólne funkcjonowanie badanych mieściło się w średnim przedziale ocen (wartość średnia: 71,27). Najwyższe oceny badane uzyskały w zakresie funkcjonowania w życiu rodzinnym i towarzyskim (wartość średnia: 20,80). Funkcjonowanie w zakresie stanu emocjonalnego oceniono najniżej (średnia wartość: 13,61). Wykazano związek funkcjonowania fizycznego ze stanem emocjonalnym ($p=0,00001$) i stanem cywilnym ($p=0,034$) oraz związek funkcjonowania emocjonalnego z metodą leczenia ($p=0,019$).

Wnioski. Ocena funkcjonowania kobiet po mastektomii stanowi dla lekarzy, fizjoterapeutów, psychologów i pielęgniarek ważną informację o problemach zdrowotnych tych kobiet, szczególnie w zakresie stanu emocjonalnego.

Słowa kluczowe: mastektomia, funkcjonowanie, FACT-G

Introduction. Breast cancer is one of the most common tumors in women. Dealing with such a diagnosis is very difficult for the patient, as the balance in the physiological, psychical and social sphere is disturbed. A complete removal of the mammary gland leads to mutilation of the female body. Lack of the attribute of femininity and motherhood and the appearance of ailments related to systemic treatment affect the physical and emotional condition of patients.

Aim. The evaluation of functioning of women after mastectomy in terms of physical and emotional condition, everyday, family and social life.

Material & Method. The study involved 100 women after mastectomy with lymphadenectomy, aged 33-75 years (mean age: 51.86) treated at The Wielkopolskie Cancer Centre in Poznań. Functioning of women after mastectomy was evaluated in the period up to one year after mastectomy on the basis of the Polish version of FACT-G scale.

Results. Overall functioning of the investigated subjects fell within the average range of ratings (mean value: 71.27). The respondents achieved the highest grades in terms of family and social life functioning (mean value: 20.80). Functioning in terms of emotional condition was rated the lowest (mean value: 13.61). The relation between physical functioning and emotional condition was proven ($p=0.034$) as well as the relation between emotional functioning and method of treatment ($p=0.019$).

Conclusion. The evaluation of functioning of women after mastectomy provides doctors, physiotherapists, psychologists and nurses with important information of their health problems, particularly in terms of emotional condition.

Key words: mastectomy, well-being, FACT-G

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Introduction

Breast cancer is the most common malignant disease among women in most of the developed countries. This situation also applies to Poland. It is an important social, medical and economical problem [1].

Dealing with such a diagnosis is very difficult, it is associated with anxiety about the future, shock, vast psychological trauma. It reveals emotions which are difficult to control. The course of treatment depends greatly on the severity of the disease. The choice between conserving therapy or mastectomy exacerbates

emotional problems among the women [2, 3]. Regardless of the choice of method, systemic treatment causes fear, depression, which often accompanies women throughout the entire period of diagnosing and treatment, and the negative experiences related to the course of the disease may lead to cancerophobia, therefore influencing the course of treatment [4, 5].

An early detection of the disease presents the opportunity to reduce cancer mortality. It is achieved with health promoting campaigns and with the participation of the Ministry of Health in Poland, which patronizes the “Early Detection of Breast Cancer” program. The increase of women’s awareness, self-control and palpation as well as regular screening allow to detect the disease at the early stage, which gives the possibility of conserving treatment [6, 7].

Aim

The study aimed at the evaluation of functioning of women after mastectomy in components of physical and emotional condition, everyday, family and social life. Questions were raised whether there was a relation between functioning – well-being and marital status, place of residence, social and housing conditions or treatment methods. In addition, the degree of acceptance of their body was evaluated.

Material and method

The study group consisted of 100 randomly selected women, aged 33-75 years, in the period up to one year after mastectomy with lymphadenectomy. The study was conducted at the chemotherapy unit and day chemotherapy unit of The Wielkopolskie Cancer Centre in Poznań (Wielkopolskie Centrum Onkologii w Poznaniu) during the period from August 2012 to May 2013. All subjects were undergoing an anticancer therapy.

The study used the Polish version of the scale to evaluate the functioning – Functional Assessment of Cancer Therapy Scale – FACT-G, which includes four components:

- physical well-being (PWB); range of possible points: 0-28
- social/family well-being (SWB); range of possible points: 0-28
- emotional well-being (EWB); range of possible points: 0-24
- functional well-being (FWB); range of possible points: 0-28.

Higher scores obtained on the scale correspond to better functioning results of the respondents.

The analyzed values of parameters were presented with average values, standard deviation (SD), median (Me), minimum and maximum range. Nonparametric

tests were used: Mann-Whitney U test for between group comparisons and Kruskal-Wallis one-way analysis of variance by ranks for the comparisons of many groups with post-hoc Dunn tests.

The Spearman correlation coefficient was calculated to identify dependence between variables.

All tests were analyzed at the significance level $\alpha=0.05$. The analysis was performed using the Statistica 10 PL (StatSoft).

Results

The respondents’ mean of age was 51.86 years. The youngest women’s – 33 years and the oldest women’s – 75 years. 41% of the patients lived in town, 31% in a city and 28% in a village. 54% of the women lived with husband and children, 3% lived only with parents and 8% alone. 20% lived with a husband/partner and 15% only with children. Most respondents were married or in a relationship (72%). Elementary education was reported by 8% of the patients, vocational by 24%, secondary by 41% and higher education by 27%. 63% of the women were in retirement/pension and active population consisted of 33%. Social and housing conditions were as follows: very good – in 12%, good – 69% and sufficient – 19%. Among 18% of the women the occurrence of breast cancer was confirmed in the family.

Over a half of the respondents (57%) were the women who accepted (27%) or rather accepted (30%) their mutilated body. However, 15% of the women did not accept the breast loss and 20% did not think about their appearance at all. The relations with partner and intimate contacts did not change after the surgery in 45% of the respondents.

41% of the women underwent the treatment of chemotherapy, chemotherapy + radiotherapy was used in 24%, chemo-radiotherapy and hormonal therapy was implemented in 20%, the least women had chemotherapy and hormonal therapy. One subject who underwent hormonal therapy was excluded from the analysis.

Evaluation of the functioning of patients based on FACT-G scale

The mean \pm SD of the FACT-G scale was: PWB – 18.30 \pm 6.31; SWB – 20.80 \pm 5.02; EWB – 13.61 \pm 5.21; FWB – 18.56 \pm 5.28. Overall evaluation of functioning was 71.27 scores.

Relation of physical condition and emotional status

The next stage of the study was to assess the relation between physical condition and emotional state. The test statistic (Spearman correlation) was

$R=0.6153$; $p<0.00001$, with a significance level of $p<0.05$. Physical well-being influences the emotional well-being of patients after mastectomy ($R=0.6152$; $p<0.0001$). The better the functioning in the area of physical well-being, the better emotional state (emotional well-being).

Relation between functioning/well-being and marital status of the respondents

The analysis results of the functioning of patients with regard to marital status in components: PWB, SWB, EWB and FWB were not statistically significant. The married women were $N=72$, the unmarried women were $N=28$. The statistical analysis showed that there was a relation only between physical functioning and marital status ($p=0.035$; $p<0.05$). Higher scores of functioning were characteristic for the married patients. While analyzing the functioning in terms of marital status a significant difference in physical functioning was indicated ($p=0.035$). Higher scores of functioning were characteristic for the married patients.

Relation between functioning/well-being and respondents' place of residence

Similarly analyzed was the relation between functioning/well-being and the respondents' place of residence. There was no evidence of the place of residence's influence on the analyzed areas of functioning/well-being. The next stage of the research was to analyze the relation of well-being with regard to social and housing conditions. Therefore, the women were divided in group (1) assessing their conditions as very good, group (2) as good and group (3) – sufficient.

Analyzing the social and housing status the significant difference in emotional well-being ($p=0.0156$; $p<0.05$) was indicated. The post-hoc analysis showed the significant difference between the women with very good (Me 18.50) and satisfactory (Me 11.50) housing conditions ($p=0.0120$). The well-being of the women who assessed their conditions as very good was better when compared with the group of satisfactory living conditions. The influence of education and place of residence on the analyzed fields of functioning/well-being was not shown.

Relation between treatment method and functioning of the patients

Analyzing the influence of the adjuvant treatment on the specific fields of functioning of the patients, the significant difference was proven in terms of emotional functioning ($p=0.0193$; $p<0.05$). The post-hoc analysis revealed a significant difference in this field of functioning between the patients treated with che-

motherapy (Me 12.00), radiotherapy and hormone therapy (mean – 17.00), ($p=0.0458$). The women treated with chemotherapy alone fared better in the emotional sphere than the respondents who received the combination therapy. One person treated with hormone therapy only was excluded from the analysis.

The relation of age and functioning/well-being in particular areas was not analyzed in order to focus on the assessment of physical condition affecting the analyzed areas of functioning.

Discussion

The course of the disease, the effects of treatment and the breast removal with lymphadenectomy change the patients' life not only in the physical, but also in social, psychosexual and emotional spheres. Disturbed is the sense of security, loss of control over own health and life and the mutilation are the sources of negative reactions.

The study analyzed the group of women of the average age of 51.86 years, mostly married, with secondary education, living in cities (under 100 thousand residents). A similar group was analyzed in other studies, revealing the results similar to those obtained in this study [8]. Ours and other authors' studies reveal that married women living and functioning in the complete family obtained higher marks in physical functioning and that limited mobility did not influence their emotional state. Those patients easier overcame the disease and its effects. They received support from their husbands and children and could rely on their help. Similar study results were obtained in the research which evaluated functioning/well-being of women aged 40-75 years and women aged 45-65 [6, 9]. In the analysis of author's own studies it was proven that the women living alone, with often underage children or elderly parents, demonstrated low assessment of emotional state. Such condition was due to malaise (physical condition) as a result of disease and adjuvant treatment, as well as the necessity to provide care to their loved ones. Lack of professional activity did not affect the emotional functioning of patients. After the surgery most of the women were retired, living on pension or disability pension due to their limited mobility of limb on the operated side. These results can be compared with the results of research on the assessment of women functioning after mastectomy in terms of effectiveness of treatment, nursing care and education [10].

Ailments associated with the combination treatment resulted in reduced professional activity. The women were afraid of their future, disability and functioning in the family.

The analysis of conducted studies revealed that the patients with very good social and living status coped much better than the patients with satisfactory conditions.

Mastectomy is a procedure that mutilates the body. The loss of breast, a symbol of femininity, attractiveness and maternity is associated with negative mental experiences. Patients are afraid of husband's/partner's reaction, rejection and often present low self-esteem.

The results of the study conducted by the authors were proved to be consistent with the other authors' results, demonstrating that the family remains the primary source of support for women after mastectomy [11]. The review of the studies confirms the occurrence of mental disorders in about a half of patients with cancer, among which anxiety and depression are dominant [12]. Monitoring the emotional state of breast cancer patients requires a thorough assessment of efficiency of disease adaptive mechanisms and the patients' assistance in coping with problems.

The studies conducted by Stępień revealed a negative influence of the disease on the emotional state in the group of patients after mastectomy when compared with the group of healthy women. They have also proven that older age (≥ 50 years) and mutilating surgical treatment evokes a sufficient increase of level of fear among women after mastectomy [12]. The confirmation of the adverse effect of the disease on the emotional condition were reported in another studies [13], which emphasized that the cultural determinants may be the reason of negative reactions to breast amputation. Breast is considered as the attribute of femininity and maternity and its loss is a serious threat to everyday life [13]. A high degree of occurrence of emotional problems, including depression, in the group of women suffering from breast cancer was confirmed by the studies conducted in Nigeria [14].

The consequences of treatment and mutilation associated with a history of mastectomy surgery were confirmed in the above cited studies, where nearly a half of the women were not satisfied with their sexual life [11]. The ill, fearing the reaction of their partners, often withdrew from intimate contact and avoided sexual intercourse. Also the behavior of women, often at the early stage of menopause and accumulation of

problems associated with cancer, results in growth of the depression level. Chwałczyńska's studies showed that over a half of women felt devoid of sexuality and did not accept themselves in a negligee [6].

It needs to be emphasized, as it is shown by other studies, that bad emotional state of women after mastectomy affects the occurrence of many psychosomatic disorders [15, 16].

The analysis of conducted studies revealed that previous occurrence of breast cancer in the family did not affect the emotional state of the respondents. Also the level of knowledge about the disease, its treatment and type of residence of the patients did not significantly affect the studied quality of life areas. The conducted studies cited above confirm lack of significant relations between fear and education, marital status, professional activity and place of residence [12].

Cancer belongs to traumatic life events. Despite its negative consequences and radicality of the surgery, an important part of therapeutic relation is played by appropriate communication and support within the family [17]. The evaluation of the functioning/well-being of women after mastectomy provides the medical team with important information about health problems of these women, especially in terms of emotional state. This information can be used to develop educational programs for women after mastectomy.

Conclusion

1. The relation between physical condition and emotional state was indicated. The better the functioning in the area of physical condition, the better emotional state of the women after mastectomy.
2. The married patients obtained higher marks in the area of physical functioning.
3. Functioning in terms of emotional well-being is related with social and housing condition.
4. There was no evidence of the place of residence's influence on analyzed areas of functioning/well-being.
5. The women treated with chemotherapy alone cope better in the emotional sphere compared to the respondents treated with the combination therapy.

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