Assessment of the quality of female patients life oncologically treated for breast cancer

Ocena jakości życia pacjentek leczonych onkologicznie z powodu raka piersi

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Abstract

Introduction: Nowadays, breast cancer is recognised as one in four malignant neoplasm of breast among women. It is the second most common cause of death in cancer female patients. The disease often leads to a loss of personal control. Dealing with negative emotions such as uncertainty, anxiety and fear becomes everyday reality. Women struggle with a whole range of negative effects of the disease, which are the reason for resignation and are destructive to the psychophysical sphere. The aim of the paper was to assess the quality of life of women with breast cancer who underwent oncological treatment.

Materials and methods: 40 women with diagnosed breast cancer who underwent oncological treatment in the radiotherapy department were assessed. To assess the quality of life, a proprietary survey and QLQ-BR23 questionnaire were used.

Results and conclusions: The obtained results showed that the lowest quality of life of the female respondents was registered in the domain determining future perspectives. The best result was observed in the domain of sexual pleasure and sexual functioning. Studies have confirmed that the female patients with vocational education indicated a worse quality of life within the domain of breast symptoms. Working female patients received worse quality of life results in terms of sexual function and sexual pleasure. No statistically significant differences were observed between the duration of the female respondents' disease and the quality of life.

Keywords: breast cancer, quality of life

Introduction

A woman's breast does not have the same biological significance as a heart, liver, lungs or brain. The breast goes beyond its anatomical and physiological usefulness. Thanks to art and advertising, breasts have become both a secret and an object identifying femininity [1]. The way of thinking and the image of illness that people create for themselves depends, among other things, on the knowledge they have, on contact with suffering persons and sometimes on personal experiences. Our imagination contributes to how we think about the disease. Despite the success of oncology, which is reflected in an increased number of people cured or with a elongated survival, cancer is still perceived as „fatal disease". There is no doubt that the disease affects the quality of life on many levels, with a significant functional impairment [2, 3].

Undoubtedly, cancer changes the patient's approach to reality. Women with breast cancer deal with changes in their moods, dealing with negative emotions such as anxiety, stress, grief, fear, insecurity and depression becomes everyday reality. Unfortunately, the effects of treatment bring with them a lot of suffering, irreversible changes in the body, appearance and also in the psyche. Women with breast cancer, undergoing chemotherapy and radiotherapy, have to face situations in which they lose their hair, their breasts are sometimes amputated, the functioning of the body changes [4–7].

Breast cancer is one of the most serious female diseases. Due to its frequent occurrence and severe course, it is a cause of constant anxiety among healthy people and suffering people. A disease that threatens our lives often leads to a sense of loss of personal control. Oncological treatment contributes to resig-

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nation, it causes helplessness, and the fear of dying exhausts the inner energy [6, 8].

Diagnosis of breast cancer can sometimes be traumatic and can lead to a sense of stigma and difference in the female patient, which in turn results in isolation from society [9]. Most women with cancer avoid contact with other people. Sometimes sick people even feel that they are unnecessary to the rest of society and their self-esteem is significantly reduced. This approach is destructive to a woman's psyche, which can cause depression. The sick will reduce social and professional activity to a minimum. Social withdrawal can worsen the effects of therapy. The fact of cancer diagnosis, its location, lack of acceptance of the changed body initiates disorders in the sexual sphere. A woman with breast cancer feels uncomfortable, she is lost and has a sense of loss of her attractiveness. Sexual relations with a partner are limited or completely eliminated, and sexual desires are secondary [6, 10].

The incidence of breast cancer is highly regionally differentiated. In developed countries it is 5 times more frequent than in the Far East countries. On a global scale, both death rate and incidence show a steady upward trend. Nowadays, breast cancer is recognised as one in four malignant neoplasm of breast among women. 1.7 million of new cases was recorded in 2012. Breast cancer is the second most common cause of death for women with cancer. As much as 80% of the cases concern women over 50 years of age [11]. In Europe, cancer is the most common tumour and ranks third in terms of the number of deaths. In 2012, Poland recorded 16 850 cases of breast cancer, and over the last two decades the number of patients increased by about 10 thousand [12]. The aim of this paper was to evaluate the quality of life of female patients ontologically treated for breast cancer.

Materials and study methodology

A group of 40 women with breast cancer treated ontologically in the radiotherapy department was examined. The age range of the examined women was from 36 to 85 years old. The quality of life of the female respondents was assessed using a proprietary survey and the EORTC QLC-BR23 questionnaire. It consists of 23 questions, which are categorized for the assessment of disorders in the emotional, physical and somatic spheres related to the own image [11].

The description of data concerning the whole surveyed group was prepared with the use of basic statistical parameters: arithmetic mean and standard deviation. In order to determine which of the analysed relationships are statistically significant, the following tests were used: Student's t-test and analysis of variance (ANOVA):

Results

Figure 1 presents the average values obtained for individual domains included in the broadly understood quality of life. Out of all domains, the lowest quality of life was recorded for the domain related to the future (2.85), body image (1.86) and stress related to hair loss (1.83). The best result was observed in the domain determining sexual pleasure and sexual functioning (1.2 and 1.26 respectively).

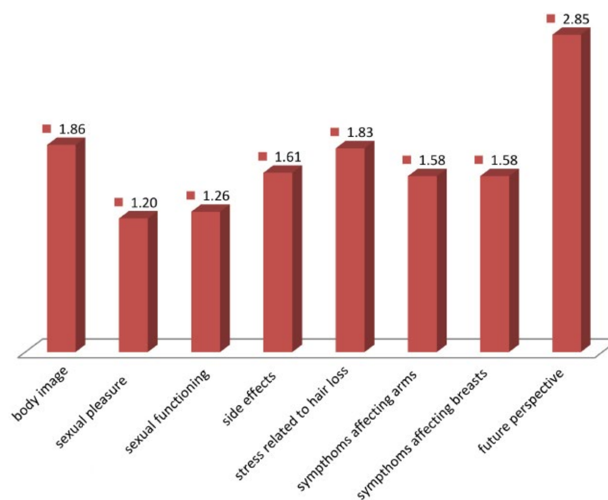

Figure 1. Average results for specific domains included in the EORTC QLC-BR23 questionnaire for women with breast cancer oncologically treated

The presence of statistically significant differences between the female respondents' education and the domain characterizing breast symptoms was observed. The lowest quality of life within the described domain was observed in the group of patients with vocational education. The significance level of the variance analysis test was p>0.05 (Table 1).

The conducted study showed that there were statistically significant differences between the nature of professional activity and the domain characterizing: sexual functions and pleasure of sex. The lowest quality of life within the described domains is observed in the group of patients who work professionally. The significance level of the variance analysis test was p>0.05 (Table 2).

No statistically significant differences were observed between the duration of the illness and the results obtained in the individual domains. The level of significance of the Student's t-test was p>0.05. On this basis, it can be concluded that the quality of life of the respondents is similar regardless of the duration of the illness (Table 3).

Table 1.

Quality of life of patients in particular domains vs. education

Evaluated domain of the quality of life	Level of education			
	Primary average+dev	**Secondary** average+dev	**Vocational** average+dev	**Higher Education** average+dev
Body image	1.79±0.4	1.63±0.6	2.27±1.1	1.42±0.6
	NS			
Sexual functions	1.25±0.4	1.19±0.4	1.45±0.7	1.17±0.4
	NS			
Sexual pleasure	1.33±0.5	1.28±0.5	1.4±0.7	1.17±0.4
	NS			
Future perspectives	2.83±0.7	2.61±0.4	3.4±0.8	2.67±1.2
	NS			
Side effects	1.58±0.6	1.49±0.4	1.57±0.5	1.45±0.3
	NS			
Symptoms affecting breasts	1.42±0.4	1.36±0.3	1.75±0.4	1.26±0.4
	p<0.05 statistically significant difference			
Symptoms affecting arms	1.33±0.4	1.53±0.5	1.76±0.7	1.66±0.8
	NS			
Stress related to hair loss	2.0±1.1	1.89±1.1	1.4±1.0	1.83±0.7
	NS			

p – significance level of the analysis of variance, **NS** – statistically insignificant difference

Table 2.

Quality of life of patients in particular domains vs. professional activity

Evaluated domain of the quality of life	Professional activity			
	Not working average+dev	**Working** average+dev	**Disability pension** average+dev	**Retirement pension** average+dev
Body image	1.84±0.8	1.25±0.2	2.17±1.1	1.66±0.54
	NS			
Sexual functions	1.14±0.3	1.8±0.8	1.35±0.5	1.11±0.3
	p<0.05 statistically significant difference			
Sexual pleasure	1.18±0.4	1.8±0.8	1.4±0.5	1.14±0.4
	p<0.05 statistically significant difference			
Future perspectives	3.0±1.0	2.8±1.3	2.6±1.2	2.9±0.8
	NS			
Side effects	1.5±0.2	1.43±0.4	1.76±0.5	1.38±0.4
	NS			
Symptoms affecting breasts	1.48±0.4	1.45±0.5	1.5±0.4	1.39±0.4
	NS			
Symptoms affecting arms	1.51±0.6	1.8±0.6	1.7±0.7	1.47±0.5
	NS			
Stress related to hair loss	1.73±0.8	1.4±0.5	2.0±13	1.78±1.1
	NS			

p – significance level of the t-test, **NS** – statistically insignificant difference

Table 3.

Quality of life of patients in particular domains vs. illness duration

Oceniana domena jakości życia	Illness duration			
	1–6 months average±dev	**6–12 months** average±dev	**13–24 months** average±dev	**over 5 years** average±dev
Body image	1.9±1.0	1.63±0.6	2.37±0.8	1.87±0.2
	NS			
Sexual functions	1.2±0.3	1.2±0.5	1.5±0.6	1.5±0.7
	NS			
Sexual pleasure	1.1±0.3	1.29±0.55	1.75±0.5	1.5±0.7
	NS			
Future perspectives	3.3±0.8	2.75±1.0	2.5±1.3	2.5±0.7
	NS			
Side effects	1.41±0.4	1.53±0.5	1.54±0.24	1.8±0.07
	NS			
Symptoms affecting breasts	1.43±0.5	1.41±0.4	1.5±0.2	2.0±0.0
	NS			
Symptoms affecting arms	1.5±0.7	1.65±0.6	1.41±0.5	1.5±0.7
	NS			
Stress related to hair loss	1.6±1.1	1.92±1.0	1.0±0.0	2.5±0.7
	NS			

p – significance level of the t-test, **NS** – statistically insignificant difference

Discussion

Satisfying biological, psychological and social needs is the essence of the overall quality of life. The need for stability, love, independence, intimacy, a sense of meaning or a sense of usefulness are variants that have a positive effect on the psychological sphere of life. All these categories under the influence of the illness lose their sense in some way. A woman who fights cancer must face a change in the image of her own appearance, perception of herself as attractive [6]. Our study showed that patients treated for breast cancer experience a decrease in the quality of life, which affects the following areas to the greatest extent: future perspectives, body image and stress related to hair loss. Also Jabłoński et al. [13] show that the decrease in the quality of life of patients with breast cancer is affected by „deterioration" of body image. The women they studied obtained a low score on the Sensuality Acceptance Scale. This is a sign of reduced acceptance of your own body, a critical assessment of the appearance of the figure in the context of its attractiveness. If in everyday life a woman pays great attention to the importance of her appearance, then cancer can have a destructive effect on her mental state, and consequently on the quality of life.

According to Deręgowska [2], there are situations in which a woman copes well with the acceptance of the illness and its course. The understanding coming from her husband and close relatives in the family helps her. For the sick, suffering women, uniting with a spouse, friends or family in the fight against cancer gives strength to overcome the crisis related to the illness. When talking about families that are characterized by a great bond, their joint functioning is not disturbed despite the difficulties and moments of uncertainty that cancer treatment brings. According to our results, out of 40 women surveyed, 36 replied that family relationships were satisfactory or very satisfactory. Stępień and Wiraszek [14] report that difficult situations resulting from experiencing cancer may consolidate and get married couples, families and even further surroundings of the patient closer. The rule is that these persons are characterized by a deep emotional mutual relationship, which gets even stronger during the time of the illness.

Our study has shown that there is a relationship between the quality of life of respondents and their education. The relationship observed was related to symptoms affecting breasts. The lowest quality of life within the described domain was observed in the group of patients with vocational education. Similar observations are provided by Szpurtacz [15], who observed that the higher the education, the higher the quality of life of women. Also the results of the study by Grai and Grodecka-Gazdecka [16] prove that better educated women define their appearance much more positively than the group with lower education level. Similarly, Lachowicz and Etowska [19] report that the analysis of the level of the quality of life according to the level of education of women shows that the higher the level of education of the respondents, the better the quality of life is assessed. In the same paper, the authors suggest that such features as the age of the female respondents, marital status and the time that has passed since the surgery did not affect the assessment of the quality of life. Similar observations can be observed in the paper written by Pawlik and Karczmarek-Borowska [17] regarding the acceptance of cancer. The authors state that the adaptation of patients after mastectomy to the new situation did not depend on their occupation, place of permanent residence and education.

Out of all the domains assessed determining the quality of life of our female respondents, the best result was recorded in the sphere of sexual pleasure and sexual functioning. A review of the literature shows that this is a major psychosexual problem for many patients being treated for breast cancer. Makara-Studzińska [10] reports that studies conducted on Japanese women have shown that in a situation when a surgical operation related to breast amputation occurs, women experience physical and mental changes in intimate relationships with their partners. Also Tasiemski et al. [8] note that the deterioration of the quality of life is observed in intimate contacts with a close partner. In their studies, the assessment of sexual functioning is very low.

Based on our study, no statistically significant differences were found between the duration of the female respondents' illness and the quality of life. Similar observations are described in the paper prepared by Białek et al. [18]. They write that women, both 18 months after surgery and 5 years after surgery, feel similarly anxiety and mood disorders that accompany them in going through the illness, which significantly weakens the quality of life. However, the authors report that women 18 months after radical mastectomy have a worse assessment of their sexuality than women 5 years after breast removal. This is due to too little time needed to get used to the new situation and accept the mutilation [18].

Conclusions

1. The lowest quality of life of the female respondents was registered in the domain determining future perspectives, body image and stress related to hair loss.
2. The best result was recorded in the domain of sexual pleasure and sexual functioning.
3. Patients with vocational education rate lower the quality of life within the domain depicting symptoms affecting breasts.
4. Patients being professionals receive worse quality of life results in terms of sexual function and pleasure in sex.
5. No statistically significant differences were observed between the duration of the female respondents' disease and the quality of life.

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Streszczenie

Wstęp: Obecnie na świecie rak piersi rozpoznawany jest jako co czwarty złośliwy nowotwór u kobiet. Jest on drugą pod względem częstości przyczyną zgonu kobiet chorujących na nowotwór. Choroba często prowadzi do utraty osobistej kontroli. Codziennością staje się obcowanie z negatywnymi emocjami, takimi jak niepewność, niepokój oraz lęk. Kobiety borykają się z całym wachlarzem negatywnych konsekwencji choroby, które są przyczyną rezygnacji oraz działają destrukcyjnie na sferę psychofizyczną. Celem pracy była ocena jakości życia kobiet z rakiem piersi poddanych leczeniu onkologicznemu.

Materiał i metody: Ocenie poddano 40 kobiet z rozpoznanym rakiem piersi poddanych leczeniu onkologicznemu w oddziale radioterapii. Do oceny jakości życia zastosowano autorską ankietę oraz kwestionariusz QLQ-BR23.

Wyniki i wnioski: Uzyskane wyniki pokazały, że najniższą jakość życia respondentek zarejestrowano w domenie określającej perspektywy na przyszłość. Najlepszy wynik zaobserwowano w zakresie domeny odnoszącej się do przyjemności seksualnej i funkcjonowania seksualnego. Badaniami potwierdzono, że pacjentki z wykształceniem zawodowym wskazały na gorszą jakość życia w obrębie domeny obrazującej objawy ze strony piersi. Pacjentki pracujące zawodowo uzyskały gorsze wyniki jakości życia w zakresie funkcji seksualnych i przyjemności z seksu. Nie zaobserwowano istotnych statystycznie różnic pomiędzy czasem trwania choroby respondentek, a jakością życia.

Słowa kluczowe: rak piersi, jakość życia