SUMMARY

Adaptation to malignant disease and the risk of depression in women with breast cancer

Introduction. Breast cancer is the most common malignant tumor in women in the world and in Poland. The results of treatment of this cancer are still unsatisfactory, and the consequences of the disease and treatment significantly hinder the functioning of women and their families. The diagnosis of the disease and the subsequent stages of struggling with it cause the occurrence of physical and mental ailments, including anxiety and even depression, which is a mental disorder and is the result of the interaction of biological, mental and social factors resulting from difficult life events, such as diagnosis and breast cancer treatment. A factor that may facilitate the functioning and achievement of the intended therapeutic effect in women with breast cancer is the adaptation to cancer expressed in the cognitive processes and specific behaviors of patients. It is a process that may proceed differently, depending on the psychophysical condition and the stage of treatment. Acceptance of the disease, on the other hand, is an expression of the patient's adaptation to the conditions imposed by the disease and consent to changes in life resulting from its diagnosis. Acceptance enables an objective assessment of one's own health situation, conscious involvement of a woman with breast cancer in the therapeutic process and good adaptation to cancer.

The aim of the study was to assess the adaptation to cancer and the importance of the level of mental adaptation to the disease and the degree of acceptance of the disease for the risk of depression among patients diagnosed with breast cancer.

Material and method. The research was carried out in the period from November 6, 2021 to April 30, 2022 among 560 women diagnosed with breast cancer treated at the Subcarpathian Oncology Center of B. Markiewicz in Brzozów – patients of the Oncological Surgery Clinic, Oncological Surgery Department, Clinical Oncology Department, Chemotherapy and Oncological Hematology Day Department, Radiotherapy Department and Breast Diseases Diagnostics and Treatment Center (BCU). 522 completely completed research tools were accepted for analysis. In the research process, the diagnostic survey method and the survey technique were used as well as four research tools: Author's Questionnaire, The Scale of Mental Adjustment to Cancer Diseases (Mini-MAC), Acceptance of Illness Scale (AIS) and Beck Depression Inventory (BDI). Statistic calculations were performed using the Statistica v. 13.3 static package. For all analyses, the verification of the null hypothesis was carried out at the assumed statistical significance level of $p \leq 0.05$.

Results. The average age of the respondents was 56.42 (MdN = 58.00; SD = 11.70). The study group was dominated by married women (72.8%; N = 380), city dwellers (60.2%; N = 314), with secondary education (43.5%; N = 227), working (53.7%; N = 287), declaring their economic situation as good (49.0%; N = 256). Nearly half of the respondents (49.2%; N = 257) had breast cancer at the time of diagnosis at T2 stage, and 23.0% (N = 120) at T3

stage. The vast majority of the examined women (82.4%; N = 430) received chemotherapy as a method of treatment, and 64.7% (N = 338) of the patients underwent surgical treatment. Breast cancer metastases occurred in 39.8% (N = 208) of the respondents. The most common women's reaction to the diagnosis of breast cancer was despair and sadness (48.7%; N = 254), while weakness and fatigue are complaints reported by the vast majority of respondents (80.1%; N = 418). Only every fourth woman (25.7%; N = 134) used the advice of a psychologist/psychotherapist.

In psychological adaptation to cancer, the constructive style (M = 43.86; MdN = 44.00; SD = 4.56) prevailed over the destructive style (M = 32.86; MdN = 34.00; SD = 7.25). In the constructive style, the largest group of respondents (82.4%; N = 430) achieved an average level on the Mini-MAC scale, and the smallest group (3.1%; N = 16) a low level. On the other hand, in the destructive style, 64.0% (N = 334) of women achieved the average level, and the lowest number of women – 1.9% (N = 10) achieved the high level. The highest average was achieved by female respondents in the positive reevaluation strategy (M = 22.18; MdN = 22.0; SD = 2.61), slightly lower in the fighting spirit strategy (M = 21.68; MdN = 21.0; SD =2.88). On the other hand, the lowest intensity of behavior occurred in the helplessness-hopelessness strategy (M = 14.62; MdN = 15.0; SD = 4.04), followed by the anxious preoccupation strategy (M = 18.24; MdN = 19.0; SD = 3.85). Mental adjustment to cancer in terms of destructive style depended on: age ($p < 0.001$), marital status ($p = 0.008$), education ($p = 0.005$), source of income ($p = 0.013$) and economic situation ($p = 0.002$) as well as support received (from husband – $p = 0.001$, from parents – $p = 0.001$, from siblings – $p < 0.001$, from friends – $p < 0.001$), time since diagnosis ($p = 0.009$), chemotherapy treatment ($p = 0.001$), self-assessment of the current state of health ($p < 0.001$), degree of illness acceptance ($p < 0.001$) and severity of depression symptoms ($p < 0.001$). In terms of the constructive style, adaptation to the disease was determined by support (from a husband – $p = 0.014$, from siblings – $p = 0.003$, from friends/colleagues – $p = 0.044$), self-assessment of the current state of health ($p < 0.001$), degree of acceptance of the disease ($p < 0.001$) and severity of depressive symptoms ($p = 0.013$).

The average degree of cancer acceptance in the AIS scale in the study group of women was 25.15 (Mdn = 27.0; SD = 7.94). Most of the surveyed women achieved an average degree of disease acceptance (62.3%; N = 325), much less (22.0%; N = 115) low, and the fewest (15.7%; N = 82) high. The degree of disease acceptance depended on: age ($p < 0.001$), education ($p = 0.013$), occupation ($p = 0.044$), source of income ($p = 0.044$), cancer stage ($p < 0.001$), use of chemotherapy ($p < 0.001$), received support ($p = 0.013$), self-assessment of the current state of health ($p < 0.001$), constructive style ($p < 0.001$), destructive style ($p < 0.001$) and severity of depression symptoms ($p < 0.001$).

The mean depression risk score on the BDI scale was 16.34 (MdN = 16.0; SD = 8.19), with almost half (47.3%; N = 247) of the respondents achieving mild depression scores, 26.3 % (N = 137) of the respondents achieved scores suggesting moderate depression and 6.7%

(N = 34) scores suggesting severe depression. Only one in five respondents (19.7%; N = 103) showed no depression. The severity of depression depended on: age ($p = 0.003$), support from parents ($p = 0.001$), support (from siblings – $p < 0.001$, from a priest – $p = 0.010$, from the Internet – $p < 0.001$), time since diagnosis of cancer ($p = 0.002$), type of treatment (surgical – $p = 0.013$, hormonal – $p = 0.008$, chemotherapy – $p = 0.001$), self-assessment of current health status ($p = 0.003$), illness acceptance ($p < 0.001$) and adaptation style to cancer (destructive style – $p < 0.001$, constructive style – $p = 0.013$).

There was a statistically significant relationship between the acceptance of the disease and the styles of mental adaptation to cancer ($p < 0.001$). Women who coped with the disease in a constructive way had a higher degree of its acceptance, and the acceptance of the disease was more influenced by the destructive style than the constructive one. The degree of acceptance of the disease determined the severity of depressive symptoms ($p < 0.001$). As the intensity of depressive symptoms increased, the degree of acceptance of the disease decreased. Significantly lower severity of depressive symptoms was found in women with a higher level of the constructive style ($p = 0.013$), while female respondents with a higher level of the destructive style had a higher severity of depressive symptoms ($p < 0.001$). The degree of acceptance of the disease did not affect the relationship between the styles of adaptation to the disease and the severity of depression. The constructive style was an independent protective factor against depressive symptoms among women with breast cancer, and the destructive style was an independent factor conducive to the occurrence of depressive symptoms.

Conclusions. Among women with breast cancer, a constructive style of coping with the disease with a strategy of positive re-evaluation and fighting spirit prevailed, and the average value of the general index in the AIS scale indicated an average degree of acceptance of the disease. The vast majority of women were at risk of depression. Respondents using a constructive style of coping with the disease presented a higher degree of its acceptance, and those women who dealt with the disease in a destructive way were characterized by a lower degree of its acceptance. The acceptance of illness was more influenced by the destructive style than the constructive one. Along with the increase in the severity of the symptoms of depression, the degree of acceptance of the disease decreased. However, the relationship between the constructive and destructive styles and the severity of depression symptoms was not affected by the degree of acceptance of the disease. The constructive style was an independent protective factor against the symptoms of depression, while the destructive style was an independent factor conducive to the occurrence of depressive symptoms in women with breast cancer. Assessment of adaptation to cancer and the risk of depression in women with breast cancer is the basis for diagnosing the health situation of women and planning interventions to ensure the best possible biopsychosocial functioning of women. Patients should be motivated to deal with the disease in a constructive way, because this approach makes the treatment process more likely to be successful, and in the event of side effects, patients can cope with problems more easily. A woman who copes with the disease in a constructive way is easier

to focus on a specific task and is a patient who cooperates well with the therapeutic team and is more willing to actively participate in the treatment process.

Key words: breast cancer, psychological adjustment, illness acceptance, depression.