

Psychological adaptation of breast cancer patients

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The aim of the research was to examine changes of psychological adaptation of women diagnosed with early-stage breast cancer in the period of 9 months and to sum up the influence of social factors on women's adaptation.

Patients and methods. 117 women were involved into the research. They were all diagnosed T1-T2/N0-N1/M0 stages of breast cancer. The patients were questioned 1–2 days before the operation, a week and 9 months after surgery. The Hospital Anxiety and Depression Scale (HADS) was used. The patients were also distributed according to their education, occupation and marital status. The anxiety and depression subscales were evaluated separately.

Results. It was found that clinically significant anxiety and depression (8 and more HADS points in anxiety and depression subscales) were more constantly observed in all groups just before the operation. The condition of anxiety and depression was most obvious among women with college education, unemployed and married. The highest percentage of anxiety (58%) and depression (32%) was found among those who had college education, in the group of unemployed women the percentage being 75% and 37% and in the group of the married ones 57% and 21%. A week after the operation showed a decline of anxiety and depression among all study groups. Following the period of 9 months after the operation, the percentage of women with clinically significant anxiety and depression increased, especially among those who belonged to the group with secondary school education; it included also patients who were unmarried and working. After 9 months, clinically significant anxiety was estimated among 57% of women with secondary school education, 33% of unmarried and 34% working patients. In the group of married women the percentage of depression grew up to 9% in the period of 9 months.

Conclusions. The results of the research indicated clinically significant anxiety and depression among the patients at the moment of diagnosis and 9 months after the disease had been diagnosed. This helped to identify the most vulnerable group of patients. Before the operation, the highest level of depression was detected among those who had college education, were unemployed and married. Following the period of 9 months, in women with secondary education, employed, married and unmarried the level of stress rose much higher in comparison with the first week after the operation.

Key words: breast cancer, depression, anxiety, social factors

INTRODUCTION

Breast cancer is the most common type of cancer among women. Major depression and depressive symptoms, although commonly encountered in patients with medical illnesses, are frequently underdiagnosed and undertreated in women with breast cancer (1). A research showed that the level of anxiety and depression among Lithuanian women with breast cancer is high (2). An extended research of 1357 women with early stages of breast cancer from the year 2005 by Janz et al. has shown that the

quality of life after breast cancer surgical treatment statistically significantly depends on social factors such as age and the level of education (3). A research carried out in Lithuania confirmed the difference in the quality of life after breast cancer surgical treatment depending on the patients age, marital status and occupation (4). Maly et al. showed that emotional adjustment was better in those women with breast cancer who were supported by a partner or other family members (5). A research allowed concluding that the financial status of breast cancer patients correlates with depression and quality of life (6). Planning

psychosocial aid, it is important to identify the most psychosocially vulnerable groups of cancer patients.

The aim of our study was to examine changes in the psychological adaptation of women with early stage breast cancer, summing up the influence of social factors (educational level, occupation and marital status) on women's anxiety and depression.

PATIENTS AND METHODS

In January 2004 – December 2005, 117 patients with T1-T2/N0-N1/M0 stage of breast cancer treated at the Department of Breast Surgery and Oncology were investigated.

The Hospital Anxiety and Depression Scale (HADS) was used in the study. This questionnaire was suggested by Zigmont and Snaith in 1983 (7) and was proved to be a valid and reliable instrument for the evaluation of patients' anxiety and depression at the hospital settings. The Lithuanian HADS version was recognized and validated in 1991 (8).

The patients were questioned in the Department of Breast Surgery and Oncology 1–2 days before and one week after the surgery and 9 months after the surgery by mail. The answers were received from 72 patients.

Anxiety and depression subscales were evaluated separately. Anxiety and depression were evaluated as clinically significant if the sum of points was 8 or more.

The patients were divided into groups according to their educational level, occupation and marital status.

Figure 1 presents the percentile distribution of the patients by their educational level: secondary or not finished secondary, college and university.

Figure 2 presents the patients' percentile distribution by their occupation: employed, retired and unemployed.

Figure 3 represents the patients' percentile distribution by their marital status: married, unmarried, and widowed or divorced.

RESULTS

Figures 4–9 present the distribution of depression and anxiety by the patients' educational level, occupation and marital status. Clinically significant depression (32%) and anxiety (58%) before the surgery was found mostly among patients with higher education (Figs. 4, 5). One week after surgery the anxiety and depression rates decreased in all groups by the patients' educational level. Most significantly depression decreases among the patients with college education (from 32% to 12%) and anxiety among the patients with university degree (from 50% to 25%). Nine months later depression and anxiety among the women with university degree decreased, but among the women with secondary and not finished secondary education the rate of depression and anxiety increased (Figs. 4, 5). The level of statistical significance for anxiety and depression in the study groups according to the educational level was set at $p < 0.05$.

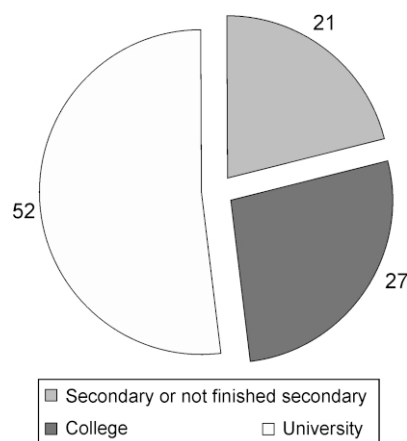


Fig. 1. Patients' distribution by educational level (%)

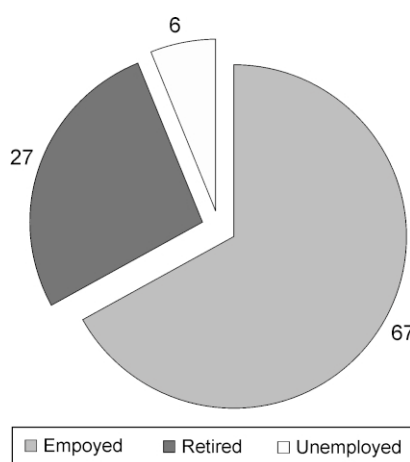


Fig. 2. Patients' distribution by occupation (%)

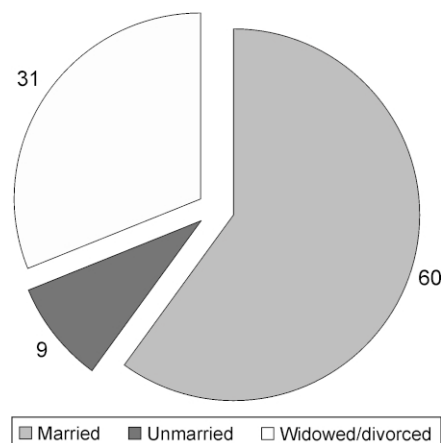


Fig. 3. Patients' distribution by marital status (%)

Figures 6 and 7 present the distribution of anxiety and depression by occupation. The highest rate of clinically significant depression and anxiety before surgery was found among the unemployed women (37% and 75%). The lowest rate of anxiety was among the retired women (31%). After surgery, the rate of depression and anxiety decreased in all patients' groups by occupation. Among the retired women, anxiety decreased insignificantly

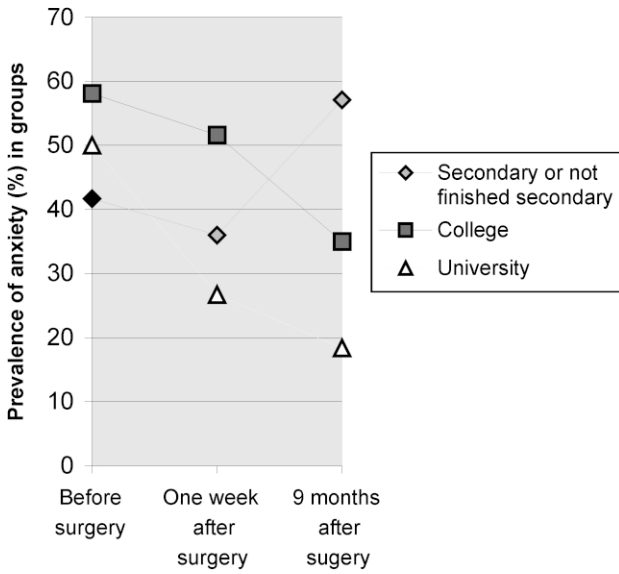


Fig. 4. Prevalence of anxiety (%) among patients with secondary or not finished secondary, college and university education

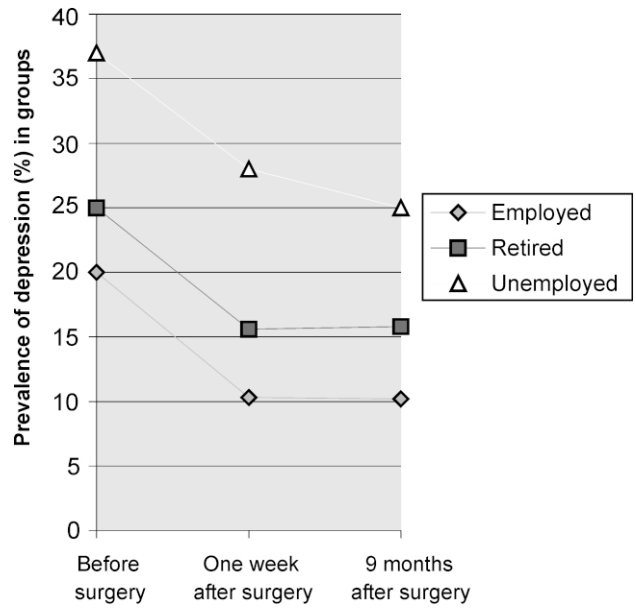


Fig. 6. Prevalence of depression (%) among employed, retired and unemployed patients

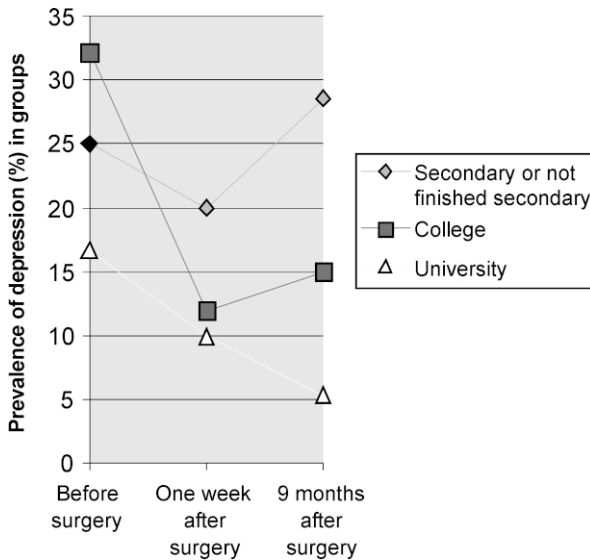


Fig. 5. Prevalence of depression (%) among patients with secondary or not finished secondary, college and university education

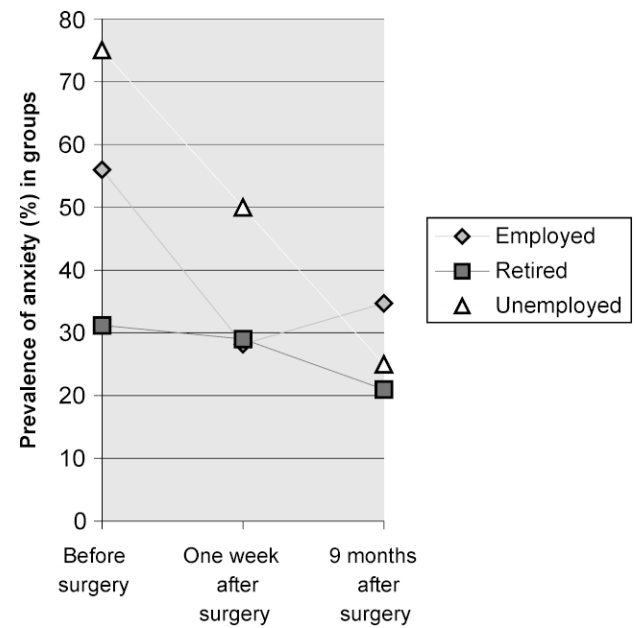


Fig. 7. Prevalence of anxiety (%) among employed, retired and unemployed patients

(from 31% to 29%). Nine months after surgery anxiety and depression rates among the retired women became stable or even decreased, but among the employed women they increased (from 28% to 35% for anxiety) (Fig. 7).

The level of statistical significance for depression in the patients' groups by occupation was set at $p < 0.01$; $p < 0.05$ for anxiety before surgery and one week after surgery, $p = 0.02$ for anxiety nine months after surgery.

Figures 8 and 9 present the distribution of anxiety and depression among the patients according to their marital status. Before surgery, in the group of widowed/ divorced women the anxiety rate was lower (36%) than in the groups

of married and unmarried women (57% and 54%), but the rate of depression was higher (25%, 22% and 20%, respectively).

One week after surgery the percentage of anxiety and depression decreased in all patients' groups by marital status. Among widowed/divorced women, depression and anxiety decreased insignificantly (from 25% to 24% for depression and from 36% to 33% for anxiety) as compared with the other groups (Figs. 8, 9). Nine months after surgery the rate of depression among married women increased (from 6% to 10%) and the rate of anxiety increased insignificantly (from 28.6% to 29.3%). Anxiety

rate in the group of unmarried women also increased (from 27% to 33%) (Fig. 9). In the other groups by marital status, anxiety and depression rates decreased nine months after surgery. The level of statistical significance was set at $p < 0.01$ for depression and for anxiety before surgery and one week after surgery in the patients' groups by marital status; $p < 0.05$ for anxiety nine months after surgery. For statistical data analysis, the SPSS programme was used.



Fig. 8. Prevalence of depression (%) among married, unmarried and widowed/divorced patients

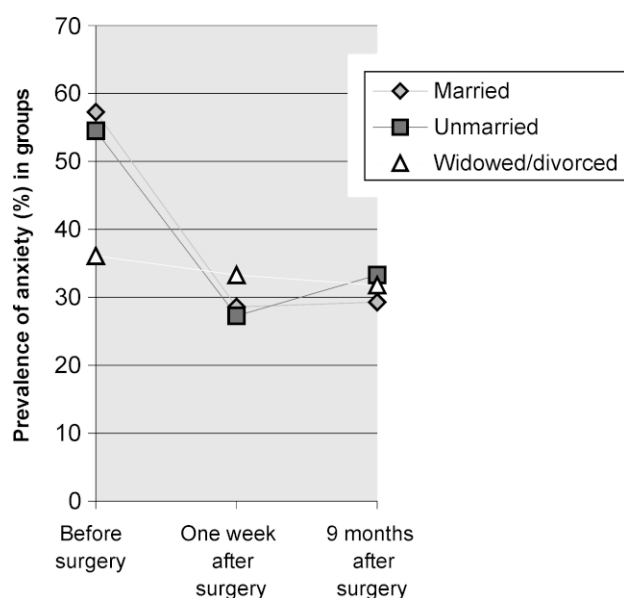


Fig. 9. Prevalence of anxiety (%) among married, unmarried and widowed/divorced patients

DISCUSSION

The first important outcome of our research was that anxiety and depression rates in breast cancer patients before and after surgery were high. Anxiety and depression rates remained high nine months after surgery and even increased in some patients' groups. These data correspond with the findings of Burgess, Cornelius et al. that nearly 50% of women with early breast cancer had depression, anxiety, or both in the year after diagnosis, 25% in the second, third and fourth years, and 15% in the fifth year. Point prevalence was 33% at diagnosis, falling to 15% after one year. Clinical factors were not associated with depression and anxiety at any time (9).

According to our research, the percentage of depression in different groups varied from 17–37% before surgery to 5–9% nine months after surgery. The anxiety ranged from 31–75% before surgery to 18–57% nine months after surgery. The research of Kornblith and Ligibel also found that there was a subset of breast cancer survivors reporting psychological distress, including depression and anxiety, involving approximately 30% 4 years post treatment, but widely ranging from 5% to 50%, depending on the time of diagnosis and treatment completion (10). According to another research carried out in 2005 in Australia, 31% of breast cancer women who had an adjuvant treatment in out-patient department were still having psychological distress (11).

The improvements over time in our study were restricted to some groups of patients: those with university or college degree, retired, unemployed or widowed/divorced. Our results correspond with the research done in Germany by Geinitz, Zimmermann et al, which showed that 2.5 years after radiation treatment the HADS anxiety score displayed a significant increase in comparison with breast cancer patients immediately after the radiation therapy (12).

The principal findings of our research are that anxiety and depression rates depended on the patients' educational level, occupation and marital status. Such analysis of social factors' influence on early stage breast cancer patients' anxiety and depression was rare in Lithuania. Our research identifies most emotionally vulnerable groups of the patients.

Importantly, our results on the increased level of anxiety and depression nine months after surgery highlight the need for dedicated service provision during this time.

CONCLUSION

The results of the research indicated clinically significant depression and anxiety of the breast cancer patients just before the surgery, one week and nine months after the surgery. The research identified most emotionally vulnerable groups of the patients.

Before the surgery, the highest distress was experienced by women with college education, unemployed and married. Following the period of nine months, in women

with secondary education, employed, married and unmarried, the stage of stress rose higher in comparison with the first week after surgery.

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PSICHOLOGINĖ KRŪTIES VĖŽIU SERGANČIŲ LIGONIŲ ADAPTACIJA

Santrauka

Šio tyrimo tikslas buvo iširti pradinių stadijų krūties vėžiu sirgusių moterų psichologinės adaptacijos (nerimo ir depresijos) pokyčius per 9 mėnesius nuo nustatytos ligos ir įvertinti socialinių veiksnių įtaką.

Pacientai ir metodai: Į tyrimą buvo įtraukta 117 moterų, sirgusių T1-T2/N0-N1/M0 stadijų krūties vėžiu. Pacientės buvo apklaustos 1–2 dienos prieš operaciją, praėjus vienai savaitei ir praėjus 9 mėnesiams po operacijos. Taikytas Ligoninės nerimo ir depresijos klausimynas (HADS). Pacientės buvo suskirstytos į grupes pagal išsilavinimą, užimtumą ir šeimyninę padėtį. Atskirai vertintos nerimo ir depresijos subskalės.

Rezultatai: Nustatyta, kad kliniškai reikšmingas nerimas ir depresija (8 ir daugiau balų HADS nerimo ir depresijos subskale) visose grupėse dažniau stebimas prieš operaciją. Labiausiai prieš operaciją nerimas ir depresija būdinga aukštesniojo išsilavinimo, nedirbančioms bei ištekėjusioms moterims: moterų su aukštesniu išsilavinimu grupėje kliniškai reikšmingas nerimas nustatytas 58% tiriamųjų, depresija – 32%; nedirbančių moterų grupėje – atitinkamai 75 ir 37%; ištekėjusių moterų grupėje – 57 ir 21%. Praėjus savaitei po operacijos visose tiriamųjų grupėse sumažėjo moterų su kliniškai reikšmingu nerimu ir depresija. Praėjus 9 mėnesiams po operacijos, tarp tiriamųjų su nebaigtu viduriniu ir viduriniu išsilavinimu, netekėjusių ir dirbančiųjų išaugo procentas moterų, turinčių kliniškai reikšmingą nerimą: po 9 mėnesių kliniškai reikšmingas nerimas buvo nustatytas 57% moterų su viduriniu ir nebaigtu viduriniu išsilavinimu, 33% netekėjusių ir 34% dirbančių moterų. Ištekėjusių moterų grupėje po 9 mėnesių padidėjo depresijos procentas ir sudarė 9%.

Išvada: Tyrimo rezultatai atskleidė kliniškai reikšmingą pacienčių depresiją ir nerimą diagnozės nustatymo metu ir po 9 mėnesių, identifiko labiausiai pažeidžiamas pacienčių grupes. Prieš operaciją didžiausią stresą patyrė aukštesniojo išsilavinimo, nedirbančios ir ištekėjusios moterys. Praėjus 9 mėnesiams, moterų su viduriniu ir nebaigtu viduriniu išsilavinimu, dirbančių ir ištekėjusių bei netekėjusių stresas padidėjo, lyginant su pirma savaite po operacijos.

Raktažodžiai: krūties vėžys, depresija, nerimas, socialiniai veiksniai.