

Physiotherapy after breast reconstruction following a radical mastectomy

(Fizjoterapia po rekonstrukcji piersi po radykalnej mastektomii)

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Abstract – Introduction. Breast cancer is one of the most frequent tumours among women. This oncological disease exerts negative influence on everyday life, impairing biological, psychological and social functioning of patients. Successfully employed breast reconstruction surgeries in combination with comprehensive rehabilitation contribute to the improvement of physical fitness, the quality of life, and self-acceptance of women who have had a mastectomy surgery.

The aim of the study. The aim of this study was to evaluate the effectiveness of rehabilitation in women after a breast reconstruction surgery.

Materials and Methods. A group of 43 women aged 25-56 were the subjects of the study. The criterion for the inclusion in the study was the membership in the "Amazonki" association. The study was conducted in the period from August 2012 to January 2013 in Kielce, Krakow with its surroundings.

The study used an authorial survey questionnaire. The obtained results were subject to statistical analysis.

Results. 93% of women in the studied group participated in the rehabilitation process, out of whom 58.1% noticed substantial improvement of physical fitness related to the therapy following a breast reconstruction surgery, and 81.4% of the respondents considered that their posture had improved; 79.1 % of the women who did exercises returned to professional work, 69.8% declared the improvement of the functioning in the family environment. 90.7% of the studied women considered that the quality of their life after the breast reconstruction had increased.

Conclusion. Most women undertaking a breast reconstruction surgery consider the process of rehabilitation an integral stage of the therapeutic procedure. Conducted studies confirm that physiotherapy after a breast reconstruction surgery is advantageous to the recovery of physical fitness. A breast reconstruction surgery contributes to the improvement of the quality of life of women affected by a tumour disease and its consequences.

Key words - mastectomy, breast reconstruction, physiotherapy, quality of life.

Streszczenie – Wstęp. Rak piersi jest jednym z najczęściej spotykanych nowotworów u kobiet. Choroba onkologiczna deorganizuje życie codzienne, upośledzając funkcjonowanie biologiczne, psychologiczne i społeczne pacjentek. Stosowane z powodzeniem

zabiegi rekonstrukcji piersi w połączeniu z kompleksową rehabilitacją przyczyniają się do poprawy kondycji fizycznej, jakości życia i samoakceptacji kobiet po przebytych zabiegach mastektomii. Cel pracy. Celem prezentowanych badań była ocena skuteczności rehabilitacji u kobiet po zabiegu rekonstrukcji piersi.

Materiał i metoda. Badaniu poddano grupę 43 kobiet, w wieku 25- 56 lat. Za kryterium włączenia uznano przynależność do stowarzyszenia Amazonek. Badanie przeprowadzone zostało w okresie: sierpień 2012 – styczeń 2013 na terenie Kielc, Krakowa i jego okolic.

W badaniu posłużono się autorskim kwestionariuszem ankiety. Uzyskane wyniki poddano analizie statystycznej.

Wyniki. Z pośród badanych w procesie rehabilitacji wzięło udział 93% kobiet., z czego 58,1% badanych kobiet zauważyło zdecydowaną poprawę sprawności fizycznej związaną z terapią po zabiegu rekonstrukcji piersi a 81,4% respondentek uznało że postawa ich ciała uległa poprawie; 79,1 % ćwiczących kobiet powróciło do pracy zawodowej, 69,8% zadeklarowało poprawę funkcjonowania w środowisku rodzinnym. 90,7% wszystkich badanych kobiet uznała, że jakość ich życia po zabiegu rekonstrukcji piersi wzrosła.

Wnioski. Kobiety przystępujące do zabiegu rekonstrukcji piersi, w większości uznają proces rehabilitacji za integralny etap postępowania leczniczego. Przeprowadzone badania potwierdzają, że fizjoterapia po zabiegu rekonstrukcji piersi korzystnie wpływa na powrót do sprawności fizycznej. Przebyty zabieg rekonstrukcji piersi wpływa na poprawę jakości życia kobiet doświadczonych chorobą nowotworową i jej następstwami.

Słowa kluczowe – mastektomia, rekonstrukcja piersi, fizjoterapia, jakość życia.

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- A. The idea and the planning of the study
- B. Gathering and listing data
- C. The data analysis and interpretation
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- E. Critical review of the article
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I. INTRODUCTION

Breast cancer is one of the most frequent tumours among women. Experiencing an oncological disease results in the re-organisation of the entire woman's life. The attribute of womanliness, maternity and beauty becomes a point of suffering and leaves a mark, both in terms of physical and psychical loss. It is extremely important that a woman in such difficult moments is provided with support and help of the closest relatives as well as professional, comprehensive care of medical personnel [1,2,3,4].

The methods of procedure that are available nowadays enable patients not only to recover but also to return to normal life and psychical and social functioning. The reconstruction of the lost breast may be an element of such a procedure. A breast reconstruction and indications for such a surgery are of both aesthetic and psychological nature; undoubtedly, they affect women's quality of life, contributing to faster restoration of the psychological and physical balance [5].

II. MATERIALS AND METHODS

Materials

The study was carried out for 6 months, from August 2012 to January 2013, in several centres:

- Świętokrzyskie Centre of Oncology in Kielce
- "Amazonki" association in Kielce
- "Amazonki" association in Krakow
- "Amazonki" association in Krzeszowice

43 women aged 25-56 were the subjects of the study. The studied women had undergone a breast reconstruction surgery after a mastectomy surgery. 81.4 % of the women underwent a breast reconstruction surgery in the postponed

procedure after a mastectomy surgery, whereas 18.6% of the studied women had a reconstruction surgery carried out during a mastectomy surgery. The breast reconstruction surgeries were carried out with the use of various methods.

Methods

The study used an authorial survey questionnaire. It comprised 26 multiple-choice questions with the possibility to mark several answers. The women participated the study voluntarily and anonymously. The first 9 questions concerned the information on the age of the respondents, the time elapsed after the breast reconstruction surgery, the mode, the methods used as well as potential complications. In the following questions, the women were asked about the reasons for the decision to undertake a breast reconstruction, fears related with the surgery, the details on the progress of the rehabilitation process as well as the relationship between the breast reconstruction and the improvement of the quality of life.

III. RESULTS

60.5 % of the surveyed women mentioned the cosmetic defect of the bust and cleavage as the main factor underlying the decision to undergo a breast reconstruction surgery. For 39.5 %, this factor involved the loss of womanliness and self-esteem and for 9.3 % – depressive states and sexuality-related discomfort. 14.0 % of the women claimed that other factors than those listed in the survey had contributed to making such a decision.

48.8 % was not anxious about undertaking a breast reconstruction survey and its consequences. 27.9 % of the respondents mentioned that they had experienced such anxiety due to the fear against another surgery and another limitation of physical fitness. The rest of the respondents (23.3 %) were afraid of the tumour disease background and negative visual effect.

In the case of 46.5 % of the women, rehabilitation after the reconstruction surgery lasted several weeks. 16.3 % attended rehabilitation for approximately a half of a year. 30.2 % of the respondents are still participating in the process of rehabilitation, whereas 7.0 % of the women did not start any rehabilitation at all.

The most women, i.e. 76.7 %, mentioned that their rehabilitation had involved/exercised for general fitness. 41.9 % of the respondents indicated the exercises of the pectoral girdle as the main element of the rehabilitation, whereas 27.9 % of the women participated in an anti-emetic therapy. The rehabilitation was also accompanied

by breathing and relaxing exercises as well as other physical therapeutic treatment.

58.1 % of the respondents declared that physiotherapy had definitely had advantageous effect on their physical fitness after the breast reconstruction surgery. 34.9 % considered that the rehabilitation after the breast reconstruction surgery had moderately affected the improvement of physical fitness; none of the women indicated the lack of positive effect of the rehabilitation.

81.4 % of the women observed the restoration of the posture balance after the breast reconstruction surgery. 18.6 % of the respondents did not notice any positive change of posture.

79.1 % of the respondents returned to professional activity after the breast reconstruction surgery. 18.6 % of the women did not continue their careers, and 2.3 % of the women answered that they had never worked before.

69,8 % of the women declared that they felt the improvement in the field of family and social relationships. 30.2 % of the respondents did not notice the improvement of these spheres of life.

90.7 % of the women considered that the quality of their life after the breast reconstruction had increased. 9.3 % of the respondents stated that they did not notice the improvement of the quality of their life after the breast reconstruction surgery.

95.3 % of the women was satisfied with the decision to undertake a breast reconstruction surgery, while 4.7 % of the respondents did not share this opinion.

IV. DISCUSSION

In recent years, the increase of the number of women undertaking a breast reconstruction surgery can be observed. It undoubtedly brings many advantages to the patients affected by the loss of breasts. In order to achieve success, however, professional physiotherapy should be an important part of this surgery, enabling women to return to full functioning and to regain the comfort of life. Available publications make few notes on the rehabilitation after a breast reconstruction surgery.

Tchórzewska confirms in her research that the rehabilitation after a breast reconstruction surgery should be under-

taken, just as in the case of the most of surgeries. The author also highlights the role of the rehabilitation activity already before the surgery, in accordance with the individual status of the patient and the planned type of reconstruction [6].

This study attempted to establish whether the women participating in the rehabilitation after a breast reconstruction surgery notice the correlation between the rehabilitation and the improvement of their fitness. As the results demonstrate, 58.1 % of the women confirm this fact. The most of the studied women attended the rehabilitation several times a week, requiring 2-6 weeks to regain full fitness. McAnaw and Harris stress in their research that the adjustment of an individual rehabilitation programme to the needs of the patient plays very significant role for the women after a breast reconstruction, enabling them to considerable extent to reach the goals they have set for themselves, and to return to previous activities. They also point out the indispensable role of a physiotherapist in detailed education of a patient, of skilful functional assessment and, consequently, of the selection of an effective, well-judged programme enabling to reduce or eliminate existing dysfunctions. [7,8].

One should acknowledge a positive change of posture after a breast reconstruction surgery, noticed by the majority of women, i.e. as many as 81.4 %. Cieśla and Bąk's research also lead to the assumption on positive influence of a breast reconstruction on achieving correct posture. According to the authors, a breast reconstruction surgery plays important role in retaining the body symmetry and a delay in the reconstruction may negatively affect the posture. The authors point out the necessity of rehabilitation after a breast reconstruction surgery in order to achieve correct body statics. Properly selected exercises, learning the correct way of breathing as well as monitoring the changes of posture during the rehabilitation process will not only enable a woman to avoid wrong compensation but also to considerably improve the posture. This, in turn, translates into general satisfaction with the surgery, better image of oneself and the improvement of the quality of life [8,9].

The analysis of the results of the conducted survey demonstrates a correlation between a breast reconstruction surgery and the improvement of women's life. The concept covers such aspects as returning to professional work, the improvement of family and social functioning and a general question concerning noticeable improvement of the comfort of life. The majority of the women, i.e. 79.1 %, returned to professional activity. 69.8 % of the women noticed the improvement of the relationships with family, acquaintances and friends. Lee, Sunu and Pignone claim that carrying out a breast reconstruction is commonly considered a surgery

that improves the well-being of women affected by breast cancer [10]. The confirmation of this assumption may be found in the answers to the questions in the survey – as many as 90.7 % of the studied women noticed the improvement of the quality of their life and of the level of self-satisfaction. As noticed by Freitas-Silva, Conde, Freitas-Junior and Martinez, the perception of the quality of life in the case of a breast reconstruction surgery comprises both physical complications and emotional consequences as well as the satisfaction with the aesthetic results [11]. Generally speaking, regular rehabilitation in the case of a mastectomy surgery enables a patient to return to correct physical fitness, and consequently it improves the patient's psychical condition [12]. The continuation of the rehabilitation process after a breast reconstruction surgery should also produce similar results. The satisfaction from the results achieved during exercises and regaining physical fitness necessary for the performance of various social roles translates into restored self-esteem and fulfilment in professional as well as family life.

The rehabilitation is also not without effect on the ultimate cosmetic effect and the satisfaction derived from it, since exercises and treatment that are properly carried out affect the healing and the reduction of the post-surgery scar, which is a significant factor for a woman enabling her to be fully satisfied with the surgery. According to Rowland, Desmond et al., the women who have had a breast reconstruction are more conscious of their body and appearance [13].

V. CONCLUSIONS

- Most women undertaking a breast reconstruction surgery participate consequently in rehabilitation, considering it a necessary and integral stage of the therapeutic procedure.
- Conducted studies confirm that physiotherapy after a breast reconstruction surgery is advantageous to the recovery of physical fitness. There is a positive correlation between the process of rehabilitation and the improvement of physical fitness of the studied women.
- A breast reconstruction surgery contributes to the improvement of the quality of life of women affected by a tumour disease and its consequences.

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