PATIENTS CHOOSE AGAINST RECONSTRUCTION AFTER MASTECTOMY FOR BREAST CANCER. DO WOMEN DISREGARD THE QUALITY OF THEIR FUTURE LIFE?

Roxana Postolică*, Sorinel Luncă*, Vlad Porumb*, Simona Nicolescu*, Gabriel Dimofte*

Abstract

Material and method. A series of 63 patients were evaluated for their perception regarding breast reconstruction. We used a two step evaluation based on an interview.

Results. In preoperative stage 45% of patients agree with reconstruction. Patients tend to be reserved postoperatively. Correlation with age shows a statistically significant association between age-groups and agreement with reconstruction (p=0.004). Women choose in favor of reconstruction in order to regain womanhood (67% preoperative, 59% postoperative), emotional balance (67% preoperative, 51% postoperative), and less for their partners or sexual life (21% preoperative, 12% postoperative). Reconstruction loses significance after the operation (46% agreement versus 20% agreement), but a strong recommendation from the surgeon represents a major argument (54% preoperative, 45% postoperative). The surgeon’s advice against reconstruction will negatively influence decision (87% preoperative versus 84% postoperative agree with the surgeon’s suggestion). 83% cases in preoperative stage, 79% in postoperative stage will consider the price as an argument against reconstruction. Other reasons against reconstruction are fear for more surgical procedures, complications and need for adjuvant therapy.

Conclusions. Breast reconstruction is not widely accepted. The lack of information regarding reconstruction and the financial implications are obvious. The surgeon’s opinion has a major influence and we should consider women with breast cancer as a vulnerable population in need for better information related to reconstruction after mastectomy.

Keywords: breast reconstruction, quality of life, attitudes

Corresponding Author - Sorinel Luncă: sdluncia@yahoo.com

* Regional Institute of Oncology Iaşi, UMF „Gr.T.Popa” Iaşi
INTRODUCTION

Breast cancer is the most common form of cancer encountered in women in any Western population and Romania is no exception. In 2012 more than 6000 women were diagnosed with breast cancer and more than 90% were in advanced stages [1].

While surgery is a major step within the therapeutic protocol attempting cure in breast cancer, partial or total removal of the breast is a very sensible issue, determining a mutilation of the symbol of the female body, a potential harm to social desirability being associated with a major psychological impact. Surgical breast removal produces a direct alteration in the quality of life in its multidimensional concept [2] mainly by a dramatic change in the women’s body image, feminine role and self esteem, as it will be reflected in the social behavior, in most social cultures. However big or small, a breast scar will be integrated in the self perceived image of the whole body [3], becoming a powerful argument in balancing the accepted aggression of the surgical procedure, from total mastectomy in “exchange” for health, to the extreme of taking all risks for maintaining the integrity of the feminine image.

Designed to restore the breast and the body image of women with breast cancer, breast reconstruction techniques aim to restore the volume, shape and symmetry of the breast by using either implants or self tissue structures transposed from other anatomical regions [4]. Ideal timing of the reconstructive procedure is not standardized. Immediate reconstruction can be advocated in early stages with favorable pathological forms, where external beam radiotherapy is not indicated, while an early (2-3 months) or late reconstruction (6-12 months) should be indicated for more aggressive forms, locally advanced stages and postoperative adjuvant therapy [5].

Breast reconstruction rates vary dramatically among countries, ranging from 1.3% in China (1990-2005), to 23% in France (2011) and 42% in USA (1997-2002) [6, 7]. The unusual dynamic of reconstructive procedures in USA from 3.4% (1985-1990) to 42% (1997-2002) indicates that there are non-medical factors that contribute to such a change and these probably include economical and cultural issues. Romania is an example of a very low rate of post mastectomy breast reconstruction, demonstrated by limited series in large medical centers with experience in breast cancer surgery (28 cases from a joint study in Timisoara, 33 case in the Department of Plastic and Reconstructive Surgery in Iasi) . Quality of life (QOL) assessment studies (focused on psychosocial life and health perception), one year after a surgical breast procedure (either lumpectomy, mastectomy or mastectomy with primary reconstruction) appears to depend less on the type of surgical procedure and more on the patients’ age, exposure to adjuvant therapy and other health problems [8]. The data complicate decision making process and also induce difficulties in providing adequate counseling to women, in individual social and cultural background.

We tried to evaluate women’s perception towards breast reconstruction in oncological cases, before and immediately after mastectomy, aiming to understand the trend against reconstructive procedures
in this group of patients.

MATERIAL AND METHOD

A series of 63 consecutive patients, operated for breast cancer, were prospectively evaluated for their perception regarding breast reconstruction and rationale in favor or against late breast reconstruction.

All procedures were performed in the Regional Institute of Oncology Iasi and patients were not previously counseled regarding the possibility of breast reconstruction. We used a two steps evaluation based on interviews. The first interview was conducted just after being admitted in the surgical ward, as we aimed to understand more about the patients’ own opinions and their representations, unaltered by the medical information. We assumed the influence of the psychological trauma after being diagnosed with breast cancer. The second interview was scheduled in the seventh postoperative day, when the psychological aspect of the surgical trauma begins to fade, the patient can see the wound and the first perceptions on the changes in the body image tend to become evident.

During the study period patients received no additional information regarding the possibility of a reconstructive procedure, while all interviews were conducted by the same investigator, with no implications in the surgical procedure or the medical follow-up, and a neutral attitude in relation with patients’ opinions. We used a structured interview with a questionnaire with two parts: one with reasons in favor of reconstruction and another with reasons against reconstruction. All items were selected based studies on the QOL in patients with breast cancer, post mastectomy reconstruction and body image perceptions associated with breast cancer[9,10,11,12,13,14,15,16]. We structured questions assessing the QOL after mastectomy (psycho-social and compartmental functioning, couple relationship and sexual dynamic), perception of the disease and treatment related problems, but we also addressed the quality of information received from the operative surgeon and their significance in deciding in favor or against reconstruction. A Likert type scale was used ranging from 1 (complete non-agreement), to 5 (complete agreement) [17].

Data were analyzed using Statistical Package for the Social Science (SPSS) 17.0 for Windows, using χ2 test and Wilcoxon test for paired non-parametric variable. Data were considered statistically significant for p-values < 0.05.

RESULTS

We divided the group of patients in 3 age-defined subgroups: 30-50 years, 51-60 years and over 60 years of age. The rationale in choosing these limits were: the average age for menopause (50 years) which produces important psycho-compartmental changes and the approximate age for retirement (60 years) associated with important changes in social relations and personal image [18]. The patient distribution in subgroups was as follows: 16% under 50 years, 32% between 50 and 60 years, and 52% over 60 years.

As cultural background and social influences are important variables, we evaluated their rural versus urban origin (38% versus 62%) and the level of education (27% elementary school, 65% high school level and 8% high
In the entire group, in the preoperative stage, 45% of patients show agreement with reconstruction, 28% have a neutral attitude and 27% disagree with breast reconstruction surgery. In the postoperative phase there are significant changes. The percentage of patients agreeing with reconstruction diminishes to 29%, 27% have a neutral position and there is a significant increase to 42% of patients who disagree with reconstruction. Patients tend to be more reserved regarding reconstruction in postoperative period and these changes reach a statistical significance level (p<0.001 Wilcoxon test for paired non-parametric data). Correlation with age shows a statistically significant association between age-groups and reconstruction agreement (p=0.004, χ2 test). 80% of patients <50 years and 55% of patients aged 51-60 agree with post mastectomy breast reconstruction, while only 27% aged over 61 would theoretically choose a reconstruction procedure.

There are numerous factors that can influence the patient’s decision and we have selected a set to use in our evaluation, assuming their significance in our socio-cultural environment. Figure 1 presents the relative importance of the factors associated by patients with an agreement for breast reconstruction.

![Figure 1. Factors associated with agreement for breast reconstruction](image)

There is an obvious concern for the integrity of the body image which appears to be the most significant reason for reconstruction, women perceiving breast surgery as a body mutilation (89% of patients). A significant increase in the number of patients who have this opinion can be seen in the postoperative state, (97%) suggesting that after the surgical
trauma is left behind and body image alterations become more significant.

It is interesting to observe that as far as breast reconstruction is concerned, women tend to be realistic and self centered, choosing in favor of reconstructions for themselves, in order to regain womanhood (67% preoperative and 59% postoperative), emotional balance (67% preoperative, 51% postoperative), and much less for their partners or sexual life (21% preoperative versus 12% postoperative). Although we have to keep in mind that this evaluation reflects preoperative and early postoperative periods which are highly emotional, physical trauma may produce a posttraumatic syndrome with specific reaction for self protection.

Reconstruction as a means to forget about cancer appears to lose significance after the operation (46% agreement versus 20% agreement, p<0.001) which may translate in an increased anxiety in the early postoperative period associated with denial and fear when waiting for the pathological result. But even so the patient-surgeon relationship appears even more important as a strong recommendation from the surgeon in charge represents a major argument for patients (54% agreement preoperative and 45% agreement postoperative). This influence is different between age-groups: with patients under 50 the surgeon’s recommendation receives patient agreement in 100% of cases preoperatively (90% postoperatively) while in the group of patients over 61 the percentage of agreement drops to 33% preoperative versus 27% postoperative, showing a significant association between the age-group and the tendency to accept the surgeon’s suggestion (preoperative p=0.005, postoperative p=0.028).

Factors that contribute to a decision against reconstruction of the breast are presented in Figure 2.
Although personal, the decision in favor or against reconstruction appears to be influenced dramatically by the operative surgeon. This correlates very well with data in the previous chapter showing the influence of a surgeon strongly supporting reconstruction. With the same magnitude, the surgeon’s advice against reconstruction will change the balance in the process of decision (87% preoperatively versus 84% postoperatively agree with the surgeon’s suggestion to avoid reconstruction).

Financial arguments appear to be strong as well: 83% preoperatively versus 79% postoperatively will consider costs to be a major problem and an argument against reconstruction. This demonstrates that the medical system failed to transmit the message that the procedure is covered by the medical insurance and that it is probably the easiest intervention in changing patients’ mentality. Reconstruction after mastectomy is perceived by operated patients similar with breast augmentation with silicone implants, as such being associated with esthetic surgery.

As seen in Figure 2 another major factor that contributes to a decision against reconstruction is the anxiety associated with local recurrence. Agreement is very strong (76% in preoperative status and 81% postoperative), despite strong medical evidence that does not associate reconstruction with an increase in the rate of local recurrence, also taking into account that breast reconstruction does not alter the capacity to detect such a recurrence.

Patients’ age appears to be a very important variable in the decision regarding post mastectomy reconstruction. There is a statistically significant relationship between age-group and agreement with the reason “too old to need reconstruction” (p<0.001). None of the patients under 50 used such a reason in order to argue against reconstruction, but in the 51-60 age-group a proportion of patients (10% preoperative and 20% postoperative) consider themselves to be too old for such a problem, and the percentages increase in the age-group >60 to 67% preoperative and 70% postoperative. It confirms our supposition that menopausal age may play a role in positioning health and body integrity in the hierarchy of priorities for women diagnosed with breast cancer.

Other important reasons that concur against reconstruction are the fear for more surgical procedures (68% preoperative and 70% postoperative), the fear for postoperative complications (57% in both situations) and the need for adjuvant therapy (59% preoperative and 71% postoperative).

DISCUSSIONS

The rationale of this study was the extremely low incidence of post mastectomy breast reconstruction in our target population, which matches other small series in Romania, but is abnormal considering the trend seen in the medical literature. Recent data regarding worldwide incidence of breast reconstruction demonstrate a large variation and dramatic changes in the last decades within the same
population; China 1.3%, Canada 7.9%, Australia 9.9%, Denmark 14%, England 16.5%, France 23%, USA 42%.

We approached patients with breast cancer as early as preoperative and the 7th postoperative day, in order to outline the cultural drawbacks and psychological implications that can favor a choice in favor or against reconstruction. The focus was mainly on psychological factors that can produce a significant impact on decision and their relationship with the surgical trauma and postoperative status. Data show that breast scars, the use of external prosthesis and the development of lymphedema may have a major impact on the QOL of women with breast cancer [10, 19]. Early reconstruction allegedly reduces the impact of body image alterations and can enhance social and sexual life of women [20]. On the other hand we accept that it is unlikely that a surgical reconstruction could solve all the psychological problems related to breast cancer and mastectomy and we are in total agreement with studies showing that even if the body image perception enhances and women feel more attractive, the uncertainty, emotional distress and QOL as a whole may not differ significantly.

Our study reflects a typical age distribution in our area, with a minority of women under 50, which we assume may produce a significant shift in the distribution of our results. We accept that it is possible, or even probable, that the younger subgroup of women with breast cancer may have different views and different needs regarding reconstruction and psychological support, but in the view of assessing the general perception, we consider that our group reflects the normal distribution of breast cancer in our population.

The positive correlations between age and agreement with breast reconstruction suggest that older patients experiment a shift in their perception of different aspects of health, from social health towards physical health, although both aspects are reflected in the QOL. Undoubtedly, age is not a pure numerical factor, as the perception of aging is influenced by educational and cultural models. The influence of menopause is very important mostly because of the traditional perception of a major change in sexual and social life of the woman, such as after 60 years of age the social aspects of life, implication, and integration tend to fade and there is a marked increase in the preoccupation for physical health and well being.

We were surprised to find that “in principle” 45% of the group agrees with reconstruction. We call it “In principle”, because we do not find these percentages duplicated in the number of reconstructions, or requests for reconstruction after mastectomy. Postoperatively the percentage drops to 29% suggesting that immediately after the operation patients wake up in a different reality. Their body, marital and social images as well as their well being appear to be less significant in the hierarchy of values, although these factors are included in the assessment of the QOL.

There are predictable factors that support the decision in favor of reconstruction (to regain womanhood, feel in balance, etc), but answers appear somehow detached from reality. Patients tend to answer about breast cancer in general. Preoperative anxiety, which dominates the days
preceding mastectomy, is replaced by the anxiety determined by the uncertainty of the definitive diagnostic. The final pathological result establishes not only the diagnostic, but also the stage, which in turn will generate a new set of decisions regarding future treatment and especially adjuvant chemotherapy, with its side effects. Such a change of perception suggests that in the early postoperative status elements like body image perception, problems related to choice of clothing and use of prosthesis are of secondary significance, as compared with the psychological impact of accepting breast cancer which is the central element of the cognitive, affective and behavioral concerns of women in this situation.

Breast reconstruction is so often associated with breast implants and esthetic changes in women’s body image, and patients have difficulties in separating the two. There are also difficulties in communication and also ambivalences in legislation on this subject that contribute to this perception. Financial aspects, whether real or unreal, pose special problems to breast cancer patients that need to mentally switch from cancer cure to breast restoration and costs of reconstruction. In early post mastectomy it appears that financial implications are a limitation or a good excuse not to think about something that can be postponed. A French study on 1937 patients that refused breast reconstruction demonstrates that financial limitation is not a significant factor in the patient’s decision. The procedure is covered by the medical insurance, but there are some restrictions in public hospitals due to limited resources and limited number of procedures that can be performed, which may be an explanation for the 14% of women that use this argument in their decision against reconstruction. Nevertheless we acknowledge the fact that limited information is provided to these patients and efforts should be made on this path both by physicians and institutions providing medical care for patients with breast cancer.

Local recurrence appears to be a major issue affecting all patients and breast reconstruction is probably viewed by patients as a compromise in the surgical management of cancer. Fear of recurrent disease affects QOL more than the choice of surgical treatment, including post mastectomy reconstruction. Such feelings associated with guilt are also encountered in a proportion of patients who choose conservative surgical treatments, and is associated with worsening of the psychological status and difficulties in adaptation and rehabilitation. We can again recognize the lack of relevant medical information transmitted to patients by their consulting surgeon during the preoperative evaluation.

The most striking evidence in our study is the magnitude of the influence the operating surgeon has upon the decision in favor or against reconstruction. We assume that patient-surgeon relationship is very strong, but we did not expect such a powerful influence regarding a future decision for reconstruction. This influence carries significant ethical problems as there are many surgeons who are not informed or have a prejudice against reconstruction. From this perspective we may consider patients undergoing mastectomy as being a vulnerable population and surgeons should display more
prudence in counseling patients regarding such sensitive matters. As
seen in our data a major cause for an attitude against reconstruction is the
surgeon’s strong opinion against the procedure. Similar data were observed
in a Canadian series which shows that 35.2% of general surgeons, 31.1% of
oncologists and 45.3% of general practitioners suggested that their own
lack of knowledge influenced them against referring patients for a
reconstructive procedure. A study from a totally different culture (Japan)
underlines the fact that 31.3% from all surgeons, when counseling about
treatment options in breast cancer, fail to provide information regarding the
possibility of a reconstructive procedure [6]. These examples confirm
our finding that surgeons who do mastectomies are not informed about
reconstructive procedures or are biased against it and do not give significant
information to their patients.

CONCLUSIONS

Breast reconstruction after mastectomy is not widely accepted in
our population and there is a very complex causality that leads to such a
mentality.

We can easily recognize a lack of information regarding the availability
of reconstructive techniques and financial implications. Patients tend to
accept theoretically the principle and can project the benefits, but in the real
life there is a very low incidence of breast reconstruction. Psychological
changes induced by a terrible diagnostic as well changes after a
surgical trauma are reflected in different attitudes toward reconstruction and major changes in
argumentation.

The most striking factor influencing the decision making is the
consulting surgeon whose advice in favor or against reconstruction may
have a dramatic impact. The surgeon’s lack of information produces a direct
impact on the patient, which is very significant in the context of a biased
perspective of the surgeon against reconstruction. As such, we consider
women with breast cancer to be vulnerable population that require
special consideration and counseling in order to make an informed choice for a
reconstructive step after mastectomy.

References:

[1]. Institutul National de Statistica, in: MedLife oferă un program amplu de diagnostic și
[2]. Moret L., Chwalow J., Baudoin B.C., Evaluer la qualité de la vie: construction d’une
[3]. Carver C.S., Ponzo Kaderman C., Price A.A. et al., Concern about aspects of body image
and adjustment to early stage breast cancer, Psychosomatic Medicine, 1998, 60(2):168-174
Tehnica lamboului musculo-cutanat de mare dorsal, Jurnalul de Chirurgie, 2005, 1(2),
[ISSN 1584-9341]
[5]. Lucescu P., Studiu asupra reconstrucției de sân, Teză de doctorat, Universitatea din Oradea,
Facultatea de Medicină și Farmacie, 2007

29
[8]. Stavron D., Weissman O., Polyniki A. et al., Quality of Life After Breast Cancer Surgery With or Without Reconstruction, ePlasty, 2009, 9, [ISSN 1937-5719]
[12]. Katz S., Lantz P., Zemencuk J., Correlates of Surgical Treatment Type for Women with Noninvasive and Invasive Breast Cancer, Journal of Women’s Health & Gender – Based Medicine, 2001, 10(7), 659-671