Attitude of Pakistani Women towards Breast Reconstruction after Mastectomy for Breast Cancer

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Abstract

Introduction: The trends in breast reconstruction after mastectomy for breast cancer have changed significantly in the western world but in our part of the world, breast disease and reconstruction are still considered a taboo. This study assesses the attitude of breast cancer patients planned to undergo mastectomy towards breast reconstruction; whether they are familiar with the availability of such procedure and if they would opt for it given the option.

Methods: 150 patients (75 in one-month after mastectomy and 75 in one-year after mastectomy group) were included in this cross-sectional study carried out at tertiary care hospitals' breast clinics in Lahore, Pakistan.

Results: Majority of patients would opt out of breast reconstruction, in both one month and one-year post-mastectomy group (93.9% and 90.7%) respectively. More patients (61.3%) in one-year post-mastectomy were found familiar with methods of reconstruction while only 35% patients knew about it in one-year post-mastectomy patients.

Conclusion: Majority of the women diagnosed with breast cancer do not want to undergo breast reconstruction surgery. Specific approaches are needed to address at the patient level, the negative opinion regarding breast reconstruction for women's own emotional health.

Keywords: breast cancer, breast reconstruction, decision-making, women.

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1. Introduction

During the last decade, with advancement in medical science leading to improvement in early detection and prompt treatment of breast cancer with better survival rates, there has been similar changes in attitude of patients after mastectomy in that patients are more aware of reconstruction options and many inquire and discuss this before undergoing mastectomy and arrange for reconstruction services at the same or different health care facility depending upon the level of expertise and options available especially in the western world(1). Many centers across the world offer early reconstruction services to patients, at a later stage (delayed breast reconstruction, DBR) or at the time of the mastectomy (immediate breast reconstruction, IBR), even though the latter is associated with increased risk of major complications not from the primary surgery but from the breast reconstruction itself.[2] Reconstruction primarily depends on the type of mastectomy performed. Mastectomy aims at resecting the glandular breast tissue up to the inframammary fold. Further modifications of the procedure include skin, areola or nipple sparing mastectomy whereby much of breast's skin envelope, nipple or areolar complex is spared, respectively, or all are spared depending upon the surgeon's assessment, spread of disease and previous procedures done on breast.[3]

There are several methods available for reconstruction for example implant/ expanderbased reconstruction and autologous tissue or flap or fat graft-based reconstruction. Later a refinement surgery is performed to reach symmetry in the two breasts in terms of size, contour and shape. Skin tattooing for nipple is also a part of this (4). Despite the rise in breast reconstruction after surgical treatment for breast cancer, most women undergoing mastectomy do not want to undergo reconstruction even though the overall 5-year survival rate after mastectomy is now 89.7% with stage II disease and more, and 98.8% for those with localized disease. A recently published survey in the United States reported that factors associated with women not undergoing reconstruction include black ethnicity, low educational level, increasing age, major comorbidity and chemotherapy (5). Nearly half of the women in this survey expressed that the most common reason for not having reconstruction was wanting to avoid an additional surgery, with a third believing that it was not very important. Interestingly, 36.3% reported fear of implants and 18.1% did not know that breast reconstruction was available as an option at all (6).

Breast reconstruction, despite of being oncologically safe as well as known to result in better psychosocial outcomes, is not widely popular amongst breast cancer patients. Several factors are associated with decreased rates and popularity of breast reconstruction.[7] These are broadly classified in patient based, physician based and cancer related factors. Patient factors include old age patients, non-white ethnic background and poor socioeconomic status including low income and rural residence.[8] All patients with early breast cancer should ideally be provided with option of mastectomy with breast reconstruction along with breast conservative surgery or mastectomy alone.[9] Universal coverage for postmastectomy breast reconstruction was made mandatory after the enactment of the Women's Health and Cancer Rights Act in the United States in 1998. However, no such reforms are made in this part of the world leading to women feeling less feminine after the surgeries. In the US, several population-based studies have showed attitudes of women towards reconstruction but despite guaranteed insurance, the percentage of patients undergoing reconstruction was only 25% to 35 % during the last decade (10). These numbers have increased during the last five years with as much as 50% females undergoing breast reconstruction at the time of mastectomy for breast cancer and another 20% undergoing it at a later stage (11). This study focuses on the attitudes of people in South Asia towards reconstruction, as talking about this body part per se is frowned upon. Patients are brought in with stage VI disease as they do not want to talk about their private parts let along discuss and consider reconstructing it afterwards. However, with rise in education in Asia, and people becoming more accepting to the idea of a healthy living both physically and mentally, it is important that patients are provided with option to be able to look like what they used to before as it has a significant impact on patient's emotional health (12). European Organization for Research and Treatment of Cancer (EORTC) has developed a questionnaire (EOTRC-BR23) especially for post-mastectomy patients which takes into consideration the loss of breast affecting her quality of life. It consists of a total of 53 questions out of which question numbers 39 to 42 focus on loss of breast tissue by inquiring about feeling physically less attractive after the disease/treatment, feeling less feminine, finding it difficult to look at yourself naked and having been dissatisfied with your body.[13] It is hoped that with this research breast reconstruction will be a topic talked about on public forums and people will be made aware of how breast malignancy does not necessarily mean loss of breast tissue and social awkwardness. Patients can spend a normal life and feel like themselves again .[14]

2. Materials & Methods

The study design is cross-sectional study. Women in Lahore, Pakistan who were diagnosed with breast cancer and underwent surgery in December 2020 were included in this study. Selfmade questionnaire was used for interviewing the patients, which was validated after running a pilot study first and interpreting the results. Study population was patients who attended the breast clinics of three of the tertiary care hospitals of Lahore, Punjab, Pakistan namely Shaikh Zayed Hospital, Lahore General Hospital and Mayo Hospital for follow up of mastectomy for breast cancer. Women included were consented patients, who had undergone surgery for breast cancer (mastectomy). Data was collected from two group of patients: at one month after surgery (January 2021) and one year after the study (December 2021). Patients who were not included in this study were below 18 years of age, any mental or cognitive disability, could not complete survey form in Urdu or English and patients with stage IV breast cancer disease. Patients' demographics included age only. Data was collected using questionnaires inquiring about; whether patients were familiar with the availability of breast reconstruction and secondly if given the option would they choose to undergo breast reconstruction if recommended by the surgeon. All statistical analysis were done using SPSS (Statistical Package for Social Sciences) version 23.0.

3. Results

During December 2020, 168 patients who had undergone mastectomy for breast cancer were interviewed out of which 15 patients did not fulfil the

inclusion criteria while the remaining 3 withdrew their consent to be included in the study.

Table 1: Age groups of the participants and duration after surgery

Age groups	After 1 month surgery		After 1 year surgery	
	N	%	N	%
19-28 years	4	5.3	1	1.3
29-38 years	16	21.3	14	18.7
39-48 years	24	32.0	24	32.0
49-58 years	22	29.3	32	42.7
59 and above	9	12.0	4	5.3

The study was conducted with 150 patients, 75 (50%) of whom had undergone surgery 1 month earlier and 75 (50%) of whom had undergone surgery 1 year earlier. The mean age of the patients was 46 years in the one-month postsurgery group and 54 years in the one-year postsurgery group. All the patients were females. (Table 1).

Most patients are middle aged (39 to 58 years of age), 46% those who underwent surgery one month back and 56% those who underwent surgery one year back. The above mention table shows that majority of females were not familiar with the method of reconstruction. However, only few of them valued their body image and were knowledgeable about reconstructive techniques. There 50 (65%) patients said they would get reconstruction if their surgeon recommended it. 29 (38.7%) of the sample included those females who have surgery just one month before. Out of patients who had undergone mastectomy one month ago, 61.3% were not familiar with methods of reconstruction while in one-year post-mastectomy group, only 35% were unfamiliar with it (Table 2). A large majority of patients from both groups stated that they would not agree to breast reconstruction if recommended by the surgeon, 93.3 % and 90.7 % respectively in both the groups (Table 2).

Table 2: Information related to reconstructive method

Statement	Responses	1 month after surgery		1 year after surgery		P value
		Frequency	percentage	Frequency	percentage	
Familiar with the method of reconstruction	Yes	5	6.7	7	9.3	.000
	No	70	93.3	68	90.7	
Would you agree to beast reconstruction if recommended by the surgeon	Yes	29	38.7	50	65	.480*
	No	46	61.3	25	35	

4. Discussion

The decision to proceed with reconstruction after breast cancer surgery is complex. It is dependent on several factors for example age of the patient, ethnic background, geography (residence in urban or rural areas), income and social pressure. Surgeons, psychologists and social workers must address these in counselling sessions when planning treatment for breast cancer. The decreased rates of patients familiar with breast reconstruction is also attributed to the same along with lack of education and lack of discussions and awareness on public forums (15). In a country where rates of immediate breast reconstruction are less than 1%, it is important to assess the changes in quality of life of women after mastectomy. Pakistan is a country where patients are not accustomed with breast reconstructive procedures due to both financial and social reasons. Therefore, a spotlight on the issue has become mandatory which is provided through our research. This study provides valuable insights into demographics, awareness regarding breast reconstruction methods, and willingness to undergo reconstruction among patients undergone mastectomy.

Demographics reveals that patients are diverse in age, with the majority falling within the middleaged bracket. The mean age of patients falling in one-month and one-year post-surgery group was 46 and 54 years respectively. This finding is consistent with a similar study done in California (14). There's a significant lack of familiarity with reconstruction methods among a large portion of overcome by raising awareness among the people using social media and news media. Awareness campaigns can be run in societies and patients. This shows a need for improved patient education. More than 90 percent of the participants in both groups were not familiar with reconstruction surgeries. This is a

significant proportion of the population. The major reason behind this result is lack of education. In a similar study, surgeons believe lack of education can be the major reason why most patients are unfamiliar with the breast reconstruction surgeries (16). A study conducted by Mehwish et al. reported that acceptance rate of breast reconstruction surgeries was more among urban population and also among women who were doing jobs as compared to housewives(17). In a lower socioeconomic country, a large population of women are not having a quality education due to cultural and religious reasons. Another reason for not knowing about such surgeries is that healthcare professionals don't aware patients regarding reconstruction after surgery. Due to overburdened healthcare system in Pakistan, doctors seldom find time to share such information with the patients. This could be overcome by raising awareness among the people using social media and news media. Awareness campaigns can be run in societies and rural areas to decrease the knowledge gap. Despite willingness to undergo reconstruction if recommended by their surgeon, the majority of patients were unwilling to agree to the procedure. This attributes to a lot of factors. Alderman et al mentioned some of the factors in his study which include older age, fear of complications, socioeconomic status, frustration about the surgery, late-stage cancer and psychological problems (18). In third world countries social norms and cultural barriers could be the biggest hurdle. The second biggest reason could be the lack of resources. Majority of patients presenting in government hospitals are non-affording. Mehwish et al. reported that financial constrains is a major factor for unacceptability (17). Such cosmetic surgeries are not offered without some cost in government hospitals so most patients are reluctant to have surgery. Many fear the complications of the surgery and being exhausted by the mastectomy before and not willing to undergo another surgery. One of the major factors is demographics. One of the significant findings of the study is the difference of acceptance and willingness of reconstruction surgeries among the set of patients. Patients who were one-year postop were more willing to undergo breast reconstruction surgery as compared to one-month postop group. This difference suggests evolving attitudes over time. Patients might find time to cope with the emotional and physical stress after mastectomy and now being ready for another surgery. Cosmetically unpleasing shape might be one of the reasons that women opt for a delayed surgery. Comprehensive patient education and shared decision-making are crucial to address the identified gaps and empower patients in making informed choices. Healthcare providers play a crucial role in providing precise information, addressing concerns, and supporting patients throughout their treatment journey. Breast awareness campaigns should be improved and made more effective. Rural areas should be more targeted as they are much deprived from the knowledge and education. The limitation of our study was smaller sample size. Our research also lacks the reasons and justification of the patients who are reluctant for not undergoing reconstruction surgeries despite being recommended by the surgeon. Further study is needed regarding this.

5. Conclusion

There are several complex factors (social to socioeconomic and psychological) that influence a woman's decision when dealing with breast reconstruction after surgical treatment for breast cancer. However, this study confirms that women suffering from breast cancer need awareness about the availability of breast reconstruction methods so that they can make an informed decision for themselves. Also, only a few patients if recommended by the surgeon would opt for breast reconstruction.

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