



POST - OPERATIVE COMPLICATIONS AFTER BREAST SURGERY: A CLINICAL, SURGICAL AND PSYCHOLOGICAL STUDY.

Surgery

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ABSTRACT

Background: As you see, a lot of work have been done in diagnosing, screening and calculating the mortality but a limited number of studies actually indicate the quality of life that the surviving women undergo. This study is dedicated to find the complications and the quality of life that the women who underwent different surgical procedures for various cancers has been studied.

Breast cancer is by far the most frequent cancer among women, with an estimated 1.38 million new cases diagnosed in 2008. It forms about 23 percent of all cancers. It is now the most common cancer both in developed and developing regions with about 6,90,000 new cases estimated in each region. Incidence rates vary from 19.3 per lac women in Eastern Africa to 89.7 per lac women in western Europe. The range of mortality rate is much less approximately around 15 per lac because of more favourable survival in developed countries. As a result, breast cancer ranks as the fifth cause of death from cancer, but is still the most frequent cause of cancer death in women in developing regions.

KEYWORDS

Post-Operative complications, seroma, hematoma, infections, depression, lymphedema.

Introduction:

It has been estimated that during the year 2008 about 0.11 million new cases of breast cancer in women occurred in India which accounts for 12.14 percent of all malignant cases. About 53000 women died of this dreaded disease. Mortality being 11.1 per lac population. Second only to cervical cancer.

The lymphatic drainage includes two sets. Those draining the parenchyma of the breast including the areola and the nipple and those draining the overlying skin excluding the areola and the nipple. The first group forms a subareolar plexus of Sappey beneath the areola and seventy five percent of the lymph is drained into axillary lymph nodes, twenty percent is drained into parasternal and the remaining drain into posterior intercostal lymph nodes. From the second group it is drained into the axillary, supra clavicular and parasternal lymph nodes. From the lower part lymphatics may reach the sub diaphragmatic lymph nodes.

The most common cancers that are encountered are carcinomas, adenomas and benign papillomas. The surgical modalities being the most commonly practised. The surgical modalities most commonly practised are lumpectomy, radical or complete mastectomy, Lymph node exploration and dissection surgery and reconstruction surgeries. Patients tend to develop brachial plexopathy or other nerve related problems also called as peripheral nerve degeneration because of an insult to the main cords related to stretch injury caused by mal - positioning in the operating room [1]. The American Society of Anesthesiology recommends upper extremity positioning such that maximal angle at the shoulder is 90, with neutral forearm position, and use of padded armboards[2]. Mondor's disease i.e thrombosis of the thoraco - epigastric vein, can occur spontaneously, after any breast procedure such as lumpectomy, or even after percutaneous needle biopsy[3-7].

The complications that are commonly met and the complications that are encountered which are specific to the surgeries mentioned above are studied in this study. A lot of work have been done in diagnosing, screening and calculating the mortality but a limited number of studies actually indicate the quality of life that the surviving women undergo. This study is dedicated to find the complications and the quality of life that the women who underwent different surgical procedures for various cancers has been studied.

Aims and Objectives:

To study the complications which are commonly and specifically associated with breast surgery.

Materials and Methods:

The study was done in 320 patients who underwent various breast surgeries for different pathologies.

The study was done in the Department of General Surgery from Oct 2016 to Oct 2017.

The study was done in Department of Surgery, Travancore Medical College, Kollam

Complete History of the patients was taken. Complete Medical Examination was conducted. The appropriate Investigations that was needed was conducted. The diagnosis was confirmed by FNAC and biopsy by the Department of Pathology.

All the pre Anesthetic evaluation by the Department of Anesthesiology was done and the Medical fitness was taken from the Department of General Medicine.

All the patients who were involved were given the appropriate antibiotics cover before the surgery.

The post - operative complications immediately after the surgery and during the routine follow up was noted and also the psychiatric evaluation was conducted by the Department of Psychiatry and any conditions were that were significantly found were noted and reported.

Inclusion Criteria:

1. The patients who were aged between 30 and 50 years were taken up for the study. This was done to reduce the age related bias.
2. The patients whose diagnosis has been confirmed has been taken up for the study.

Exclusion criteria:

1. The patients who were on chemo therapy or any immuno suppressant drugs were not considered for the study.

All the statistics have been conducted using the latest SPSS software 2015. (California)

Results:

Table 1: Mean age of the population:

	Mean	Std. Deviation
age	42.21	7.74

The mean age of the population which was studied was 42.21 years with a standard deviation of 7.74 years.

Table 2: General Complications (n=320)

Complications	Present	Absent
Wound Infections	38	282
Seroma	16	304
Hematoma and venous thromboembolism	47	273
Chronic Pain	191	129

In the present study the wound infections even after providing the pre and post - surgical prophylaxis was found to be in 11.87%. The seroma was found to be in 5%. The hematoma and venous thrombo - embolism was found in 14.68% and chronic pain was found in 59.68%.

Table 3: Complications in Mastectomy procedure: (n=84)

Complications	Present
Wound Infections	26
Seroma	01
Hematoma and venous thromboembolism	31
Chronic Pain	26

In the present study twenty six patients had wound infection which accounted to 30.95%, Seroma developed in one patient who accounted to 1.19%, Hematoma and venous thromboembolism developed in 31 patients who accounted for 36.90% and chronic pain was complained in 26 people which accounted to 30.95%

Apart from these complications Incisional Dog Ears were noted in 14% of the total operated which was specific to the mastectomy procedure.

The depression developed in 82% of the cases after referring the patients to the Department of Psychiatry.

Table 4: Complications in Lumpectomy Procedure: (n=43)

Complications	Present
Wound Infections	01
Seroma	Nil
Hematoma and venous thromboembolism	03
Chronic Pain	39

In the present study one patient had wound infection which accounted to 2.32%, Hematoma and venous thromboembolism developed in 3 patients who accounted for 6.97% and chronic pain was complained in 39 people which accounted to 90.67%.

Apart from these Breast fibrosis was seen in 12% of the cases, breast lymphedema was seen in 22% of the cases, and chronic/recurrent breast cellulitis was complained in 19% of the cases which was specific for the procedure.

Table 5: Complications in Axillary and other lymph nodes dissection: (n=113)

Complications	Present
Wound Infections	11
Seroma	15
Hematoma and venous thromboembolism	13
Chronic Pain	74

In the present study eleven patients had wound infection which accounted to 9.73%, Seroma developed in fifteen patient who accounted to 13.27%, Hematoma and venous thromboembolism developed in 13 patients who accounted for 11.5% and chronic pain was complained in 74 people which accounted to 65.48%.

Apart from these lymphedema developed in 92% of the cases.

Table 6: Complications due to Breast Reconstruction Surgery. (N=31)

Complications	Present
Wound Infections	Nil
Seroma	Nil
Hematoma and venous thromboembolism	Nil
Chronic Pain	31

One hundred percent of the cases developed chronic pain after breast reconstruction surgery.

Table 7: Complications due to Sub – areolar Incision: (n=21)

Complications	Present
Wound Infections	Nil
Seroma	Nil
Hematoma and venous thromboembolism	Nil
Chronic Pain	21

One hundred percent of the cases developed chronic pain after Sub – areolar Incision.

Discussion:

The mean age of the population which was studied was 42.21 years with a standard deviation of 7.74 years. The general complications which was found in the present study the wound infections even after providing the pre and post - surgical prophylaxis was found to be in 11.87%. The seroma was found to be in 5%. The hematoma and venous thrombo - embolism was found in 14.68% and chronic pain was found in 59.68%.

This was more when compared to the study conducted by other authors. Especially the chronic pain was seen to be more. In the other study it was reported for about thirty percent [8- 14]. But in our study it was accounted for 59.68%.

In the mastectomy procedure twenty six patients had wound infection which accounted to 30.95%, Seroma developed in one patient who accounted to 1.19%, Hematoma and venous thromboembolism developed in 31 patients who accounted for 36.90% and chronic pain was complained in 26 people which accounted to 30.95%. Apart from these complications Incisional Dog Ears were noted in 14% of the total operated which was specific to the mastectomy procedure. The depression developed in 82% of the cases after referring the patients to the Department of Psychiatry.

In the lumpectomy procedure In the present study one patient had wound infection which accounted to 2.32%, Hematoma and venous thromboembolism developed in 3 patients who accounted for 6.97% and chronic pain was complained in 39 people which accounted to 90.67%. Apart from these Breast fibrosis was seen in 12% of the cases, breast lymphedema was seen in 22% of the cases, and chronic/recurrent breast cellulitis was complained in 19% of the cases which was specific for the procedure.

In the axillary lymph node dissection eleven patients had wound infection which accounted to 9.73%, Seroma developed in fifteen patient who accounted to 13.27%, Hematoma and venous thromboembolism developed in 13 patients who accounted for 11.5% and chronic pain was complained in 74 people which accounted to 65.48%. Apart from these lymphedema developed in 92% of the cases.

One hundred percent of the cases developed chronic pain after breast reconstruction surgery.

One hundred percent of the cases developed chronic pain after Sub – areolar Incision.

Conclusion:

In the present study complications are found and properly dealt with. The surgical, clinical and psychiatric complications are found out in this study. The present study hopes to be of immense help for the practicing surgeons in understanding the complications and thus be ready to face the same.

The study was done in a different population when compared with the other studies and thus the procedures followed were different. The study was done in the local population and thus is intended to help the surgeons better.

Reference:

- Grunwald Z, Moore JH, Schwartz GF. Bilateral brachial plexus palsy after a right-side modified radical mastectomy with immediate TRAM flap reconstruction. Breast J 2003;9(1):41–3.
- Warner M, Blitt C, Butterworth J, et al. Practice advisory for the prevention of perioperative peripheral neuropathies. A report by the American Society of Anesthesiologists' Task Force on the prevention of perioperative peripheral neuropathies. Anesthesiology 2000;92:1168–82.
- Bejanga BI. Mondor's disease: analysis of 30 cases. J R Coll Surg Edinb 1992;37(5):322–4.
- Catania S, Zurrida S, Veronesi P, et al. Mondor's disease and breast cancer. Cancer 1992;69(9):2267–70.
- Harris AT. Mondor's disease of the breast can also occur after a sonography-guided core biopsy. AJR Am J Roentgenol 2003;180(1):284–5.
- Hou MF, Huang CJ, Huang YS, et al. Mondor's disease in the breast. Kaohsiung J Med Sci 1999;15(11):632–9.
- Jaberi M, Willey SC, Brem RF. Stereotactic vacuum-assisted breast biopsy: an unusual cause of Mondor's disease. AJR Am J Roentgenol 2002;179(1):185–6.
- Vinton AL, Traverso LW, Jolly PC. Wound complications after modified radical mastectomy compared with tleectomy with axillary lymph node dissection. Am J Surg 1991;161(5):584–8.
- Platt R, Zucker JR, Zaleznik DF, et al. Prophylaxis against wound infection following

- hemiorrhaphy or breast surgery. *J Infect Dis* 1992;166(3):556–60.
10. Lipshy KA, Neifeld JP, Boyle RM, et al. Complications of mastectomy and their relationship to biopsy technique. *Ann Surg Oncol* 1996;3(3):290–4.
 11. Bertin M, Crowe J, Gordon S. Determinants of surgical site infection after breast surgery. *Am J Infect Control* 1998;26:61–5.
 12. Thomas R, Alvino P, Cortino GR, et al. Long-acting versus short-acting cephalosporins for preoperative prophylaxis in breast surgery: a randomized double-blind trial involving 1,766 patients. *Chemotherapy* 1999;45(3):217–23.
 13. Gupta R, Sinnett D, Carpenter R, et al. Antibiotic prophylaxis for post-operative wound infection in clean elective breast surgery. *Eur J Surg Oncol* 2000;26(4):363–6.
 14. Nieto A, Lozano M, Moro MT, et al. Determinants of wound infections after surgery for breast cancer. *Zentralbl Gynakol* 2002;124(8–9):429–33.