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

General Surgery

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ABSTRACT

About 13 lakh new cases of breast cancer were diagnosed in 2008 and the statistical trajectory is following an upward curve. It is one of the most common cancers that are encountered especially in middle aged women and accounts approximately twenty five percent of all cancers. There is no geographical barrier and all races have been affected. African population was seen to have less number of incidences when compared to the European Population. Survival rate is more in European population than the developing countries. This may be due to better tertiary care. Developing countries like ours is the most affected because the death and morbidity is due to complications that are faced by the population which has undergone surgery. This study puts in an effort to study the Post - operative complications after breast surgery.

KEYWORDS

Surgery, Lumpectomy, lymphedema, depression, Complications, Mammary Gland.

INTRODUCTION:

About 13 lakh new cases of breast cancer were diagnosed in 2008 and the statistical trajectory is following an upward curve[1]. It is one of the most common cancers that are encountered especially in middle aged women and accounts approximately twenty five percent of all cancers. There is no geographical barrier and all races have been affected. African population was seen to have less number of incidences when compared to the European Population[2-5]. Survival rate is more in European population than the developing countries. This may be due to better tertiary care.

The breast also called as the mammary gland is an evolutionary feature that links us to the other mammals. The breast in humans is bilateral and is seen in the pectoral region because in a developing phase the other parts of the mammillary line degenerates and only in the above said region it develops. The breast mainly is a glandular tissue and is a modification of the sweat glands. It contains a parenchyma, connective tissue and fat.

The breast has an excellent lymphatic drainage and unique. The parenchyma of the breast, the areola and the nipple forms a subareolar plexus of Sappey that is formed directly underneath the areola. From this seventy five percent of the lymphatics drain into axillary lymph nodes especially the anterior and lateral group. About twenty percent drains into para sternal and the remaining drains into posterior intercostal which follows the posterior intercostal vessels.

The second set drains the superficial skin excluding the areola and the nipple. The superior part drains into supra clavicular lymph nodes, Medially it drains into parasternal and laterally it drains into axillary lymph nodes. The inferior part drains into sub-diaphragmatic lymph nodes after piercing the external oblique and the diaphragm.

A variety of surgeries are conducted in the treatment of breast surgeries. Mastectomy, lumpectomy, areolar incisions, axillary lymph node dissections are a few to be named. In the near vicinity of axillary lymph nodes are the brachial plexus. So any breast surgery there is a risk of complications. Brachial plexus insults, Lymphedema, Developing of seroma, wound infections, venous thrombosis are a few of complications.

Patients are said to develop brachial plexopathy or aother nerve insults because of an insult to the main cords due to stretch injury caused by mal - positioning of the patient in the operating room[1-4]. The American Society of Anesthesiology recommends maximum angle at the shoulder is 90, with neutral or normal forearm position, and to use the padded armboards[4-5]. Thrombosis of the thoraco - epigastric vein also called as Mondor's disease can occur after any breast procedure such as lumpectomy, or even after percutaneous needle biopsy is done for diagnosis[6-9].

Developing countries like ours is the most affected because the death and morbidity is due to complications that are faced by the population which has undergone surgery. This study puts in an effort to study the Post - operative complications after breast surgery.

AIMS AND OBJECTIVES:

To study the Post - operative complications of breast surgery. i.e Clinical, Surgical and Psychological.

MATERIALS AND METHODS:

This sample study was 90 patients who underwent various breast surgeries for different pathologies.

The study was done in the Department of General Surgery from Oct 2013 to January 2015 in Kasturba Medical College, Manipal, MAHE University.

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

INCLUSION CRITERIA:

1. The age of the patients ranged between Forty years and Seventy years. This was done to reduce the age related bias.

EXCLUSION CRITERIA:

1. Patients who were on chemo therapy or any immuno supressant drugs.

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

RESULTS:

Table 1: Mean age of the population:

	Mean	Range	Std. Deviation
age	48.16	25-50 years	11.34

Graph 1: Age Distribution of the Population:

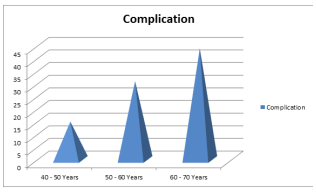

Table 2: Procedure Distribution:

Procedures	Frequency
Mastectomy Procedure	41
Lumpectomy Procedure	27
Axillary and other lymph nodes dissection (Along with Mastectomy or Lumpectomy)	44
Breast Recostruction Surgery	19
Sub – areolar Incision	02

Table 3: Significance to age related complications

Age 60 – 70 years	X-Value	p-Value	Significance
45	0.625	0.003	Significant

Table 2: Complications

Complications					
Procedures	**Mastectomy Procedure**	**Lumpectomy Procedure**	**Axillary and other lymph nodes dissection**	**Breast Recostruction Surgery**	**Sub – areolar Incision**
Wound Infections	01	Nil	02	Nil	Nil
Seroma	01	Nil	04	Nil	Nil
Hematoma and venous thromboembolism	02	01	07	Nil	Nil
Chronic Pain	21	26	44	19	02
Depression	21	01	41	Nil	Nil

Table 3: Test of Significance for Chronic pain after Axillary and other lymph nodes dissection and Depression

Procedure	X-Value	p-Value	Significance
Axillary and other lymph nodes dissection	0.843	0.0021	Significant
Depression	0.421	0.004	Significant

DISCUSSION:

In our Study we found that the mean age of the sample study population was found to be 48.16 years. The range of the population was found to between twenty five to fifty years. The standard deviation of the population was found to be 10.34 years.

The age distribution was found to fifteen in the age group of forty to fifty years. Thirty one were found in between fifty to sixty years and forty four between sixty to seventy years. It was found that a significant amount of patients who developed complications were aged between sixty and seventy years. It was also found that the complications increased as the age progressed. The procedure distribution was as follows. Forty one patients underwent mastectomy procedure,Twenty Seven underwent Lumpectomy procedure. Axillary dissection and other lymph node dissections that accompanied the above said two procedures were done in forty four patients. Breast reconstruction surgery was done in nineteen patients and two patients underwent sub-areolar incisions.

Complications that were noted were wound infections, seromas, hematomas and venous thrombo-embolisms and chronic pain. Depression was seen in patients who came for follow up.

There was a significant relation between chronic pain and axillary lymph nodes dissection. There was also a significant relation between depression and mastectomy patients who underwent axillary and other lymph nodes dissection. When compared to the other studies conducted by Lipshy KA et al, Thomas R et al, Gupta R et al, Nieto et al, our study stands in agreement with the above mentioned studies[11-14].

CONCLUSION:

There was a significant relation between chronic pain and axillary lymph nodes dissection. There was also a significant relation between depression and mastectomy patients who underwent axillary and other lymph nodes dissection.

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