

Original article:

Study of complications associated with the various methods used as skin coverage of the breast

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Abstract:

Introduction: Carcinoma of breast is the second most commonest malignant condition and is the leading cause of death from cancer in females in western countries and in our country , the incidence of carcinoma breast has been on rise. In a developing country like India, it is observed that most of the patients of carcinoma Breast clinically present in late stages due to their ignorance of the disease despite so much of advancement in its detection and management.

Material and methods: This was an observational study done in the department of Surgery of Pravara institute of medical sciences, Loni. The patients with breast carcinoma proven by FNAC or biopsy underwent various types of skin coverage. The type of skin coverage depended on the size of breast lump. Skin flap necrosis can occur if the skin is fixed under tension.

Results : The most common complication in our study was seroma formation which was observed in 28.5% of our patient, while in literature the published rate of seroma formation varies between 4.2% and 89% in undrained axilla and as high as 53% in undrained axilla.

Conclusion: The most common complication in breast reconstruction with the LD Flap is donor site seroma at the harvest site.

Keywords: Carcinoma of breast

Introduction:

Carcinoma of breast is the second most commonest malignant condition and is the leading cause of death from cancer in females in western countries and in our country , the incidence of carcinoma breast has been on rise. In a developing country like India, it is observed that most of the patients of carcinoma Breast clinically present in late stages due to their ignorance of the disease despite so much of advancement in its detection and management. Success in Breast Cancer management depends on the development of new diagnostic methods, surgical treatments, histopathological compliance and newer treatment options. The modern approach to breast cancer management surgery is multidisciplinary. It includes surgery, radiotherapy, hormonal therapy and chemotherapy. The type of surgery depends on the stage of the breast cancer at the time of initial presentation, patient's preference and surgeon's choice.^{1,2}

Material and methods:

This was an observational study done in the department of Surgery of Pravara institute of medical sciences, Loni. The patients with breast carcinoma proven by FNAC or biopsy underwent various types of skin coverage. The type of skin coverage depended on the size of breast lump.

Inclusion criteria:

1. Patient with locally advanced breast carcinoma who were selected for skin coverage
2. Patient who presented with a large breast lump
3. Patient with all grades of tumor
4. Patient who were willing to participate in this study with proper consent
5. Large and locally advanced invasive breast carcinoma
6. Prior breast surgery
7. Distant metastasis

Exclusion criteria:

1. Small growth
2. Ductal carcinoma in situ
3. Patient has received preoperative chemotherapy
4. Pregnancy

All patients satisfying inclusion exclusion criteria were grouped according to the type of skin coverage:

- Group 1- primary closure with advancement of bilateral flaps
- Group 2- skin grafting
- Group 3- Latissimus Dorsi flap

Sample size: 45 Patients

Results:

Table No.1: Complications of LD flap

Sr. No	Complications	No. of patients (total=7)	Percentage
1.	Seroma	2	28%
2.	Operated site infection	2	28%
3.	Skin flap necrosis	1	14.2%
4.	Donor site infection	1	14.2%
5.	Lymphedema	1	14.2%
6.	Paraesthesia	0	0%
7.	Hemorrhage	0	0%
8.	Hematoma	0	0%
9.	Secondary suturing	0	0%

Table No. 2: Complications of Skin grafting

Sr.no	Complications	No. of patients (total = 10)	Percentage
1.	Graft rejection	2	11%
2.	Donor site infection	2	11%
3.	Seroma	3	30%
4.	Lymphedema	1	5%
5.	Hemorrhage	0	0%
6.	Hematoma	0	0%
7.	Delayed healing	1	5%
8.	Operated site infection	2	11%

Discussion:

There is a dramatic evolution in the field of breast reconstruction. “Toilet mastectomy” is done on locally advanced breast cancer patients with the aim of ablating the breast and skin tissues and minimizing oncologic recurrence.^{3,4}

A variety of locoregional tissue transfers have been introduced and common goal is to provide early wound healing and low risk of total flap failure.^{5,6} In developing countries, there is significantly limited health care resources, which poses a unique challenge in the treatment of locally advanced carcinoma . Compared with the treatment of early breast cancer, the treatment of locally advanced breast cancer is more resource intensive and generally has poorer outcome.

Locally advanced breast cancer represent 50-80% of all breast cancer cases in resource poor country.⁷

The most common complication in our study was seroma formation which was observed in 28.5% of our patient, while in literature the published rate of seroma formation varies between 4.2% and 89% in undrained axilla and as high as 53% in undrained axilla.⁸

Woodworth PA et al⁹ observed seroma 2.5 to 51%. The overall seroma rate was 15.8% in study by Gonzalez EA et al¹⁰ .The seroma formation can be prevented by insertion of suction drain deep to mastectomy flaps in the axilla.⁸³ The seroma in our study was easily managed with aspiration and pressure.

The most common complication in breast reconstruction with the LD Flap is donor site seroma at the harvest site.¹¹ Seromas are treated with prolonged suction drainage or outpatient aspiration, if the surgical drain has already been removed. To prevent this morbidity, the surgeon may perform quilting sutures or use a fibrin sealant at the donor site defect at the time of wound closure and encourage the patient to avoid excessive upper extremity use resulting in shearing forces during the postoperative period.¹²

Conclusion:

The most common complication in breast reconstruction with the LD Flap is donor site seroma at the harvest site.

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