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Original article:

Study of effectiveness of various methods used as skin coverage of the breast

Dr RN Patil , DR. Dilip K. Apturkar *

Department of Surgery, Pravara Institute of Medical Sciences (Deemed University) Loni, Dist. Ahmednagar, India
Corresponding author*

Abstract:

Introduction: Surgically ablation of locally advanced breast cancer often results in huge defects, however immediate reconstruction of the breast mound is controversial, particularly its relationship to clinical indications and type of reconstruction.

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 : It can lead to skin loss and may need grafting to cover the defect. In our study skin flap necrosis occured in 21% of patients. Mizuno H[88] reported skin flap necrosis in 7.9% of patients and Bernard RW[89] reported 9.52%.

Conclusion: Actually it is difficult to come to any conclusion because of the small sample size we observed that all the various methods of treatment are equally effective if used properly with indication.

Keywords: skin grafting

Introduction:

Surgically ablation of locally advanced breast cancer often results in huge defects, however immediate reconstruction of the breast mound is controversial, particularly its relationship to clinical indications and type of reconstruction. Covering of any large chest wall defects adequately is the main clinical issue, and a variety of techniques have been implemented over the last four decades, including skin grafts, local skin or fasciocutaneous flaps, omental flaps, and myocutaneous flaps such as pectoralis major, rectus abdominis, latissimus dorsi and external oblique flaps.[1]

The purpose of the study is to see various methods of skin coverage after toilet mastectomy which will give us a clear view of advantages and disadvantages of various methods and will help us in better understanding of best suitable method which should be used in patient of carcinoma breast and requires short operative time and prevention of any further complications arising due to particular method used.

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.

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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:Duration of stay

Sr. no.	Duration of stay	Primary closure	LD flap	Skin grafting	Mean
1.	12-20 Days	21	3	8	10.6
2.	21-30 Days	6	4	1	3.6
3	31-45 Days	2	0	1	1

Table no.2:Start of adjuvant therapy

Sr.no	Start of adjuvant therapy (in days)	Primary closure	LD flap	Skin grafting	Mean
1.	14-20	16	3	8	9
2.	21-30	9	3	1	4.3
3.	31-40	1	1	0	0.66
4.	41-50	2	0	1	1

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Table No.3: Size

Sr no.	Size (in cm)	Primary Closure	LD Flap	Skin Grafting
1.	5-10	25	0	2
2.	11-15	3	7	8
3.	16-20	0	0	0

Discussion:

Skin flap necrosis can occur if the skin is fixed under tension. It can lead to skin loss and may need grafting to cover the defect. In our study skin flap necrosis occured in 21% of patients. Mizuno H[88] reported skin flap necrosis in 7.9% of patients and Bernard RW[2] reported 9.52%.

There is a difference in our study because there was large chest wall defect created as compared to the above mentioned studies.[2,3,4]

Hematoma usually occurs due improper hemostasis. It is usually avoided by fixation of flaps and suction catheter drainage. In this study none of the patients had hematoma.

The increased number of wound infection in our patients was due to factors associated with patients and hospital, like malnutrition, improper hygiene of patient, the drain and wound care.These patients were treated with antibiotics according to culture sensitivity report and daily dressing. In the present study graft rejection was seen in same patients, those who had operated site infection i.e. 11%. It suggests that graft rejection is associated with operated site infection. According to Deepak M. Kalaskar et al[3] , second commonest reason for graft rejection is operated site infection.

Conclusion:

Actually it is difficult to come to any conclusion because of the small sample size we observed that all the various methods of treatment are equally effective if used properly with indication.

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