

Immediate breast reconstruction After mastectomy

An Essay

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Abb.	Description
AF	Activating function
ALND	Axillary lymph node dissection
AS	Areola sparing
BCT	Breast conservation therapy
BRCA 1	Breast cancer antigen 1
BRCA 2	Breast cancer antigen 2
CK	Cytokeratin
DCIS	Ductal carcinoma in situ
DIEP	Deep inferior epigastric perforator flap
DSEA	Deep superior epigastric artery
E2	Estrogen
ER	Estrogen receptor
FDA	US Food and Drug Administration.
FISH	Fluorescence in situ hybridization
GAP	Gluteal artery perforator flap.
HER2	Human epidermal growth factor receptor 2
IGAP	Inferior gluteal artery perforator flap.
IHC	Immunohistochemistry
LABC	Locally advanced breast cancer

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LDMF	Latissimus dorsi muscle flap
MDOT	Modified double opposing tab flap.
MRM	Modified radical mastectomy
NAC	Nipple areola complex
NAS	Nipple areola sparing
NCI	National Cancer Institute
NOS	No otherwise specified
PMRT	Post mastectomy radiotherapy
PR	Progesterone receptor
SGAP	Superior gluteal artery perforator flap.
SIEA	Superficial inferior epigastric artery flap
SLN	Sentinal lymph node
SLNB	Sentinel lymph node biopsy
SLNB	Sentinal lymph node biopsy
SPECT	Single photon emission CT
SSM	Skin sparing mastectomy
TGF	Tumour growth factor
TNM	Tumor-nodes-metastasis
TRAM	Transverse rectus abdominis myocutaneous flap
TUG	Transverse upper gracilis musculocutaneous flap.
VRAM	Vertical rectus abdominus myocutaneous flap

Introduction

The fundamental goal of breast cancer surgery is to provide sound oncological treatment with good physical outcome (*Snelling.A et al, 2005*).

Mastectomy involves the removal of breast tissue, varying amounts of skin and invariably the nipple-areola complex. The removal of these tissues results in the loss of volume, shape and contour of the breast. Breast reconstruction aims to restore these attributes and uses the opposite breast as an aesthetic reference point (*snelling.A et al, 2005*).

Immediate breast reconstruction has enjoyed increased popularity as evidence of oncological safety and the superior cosmetic results of this approach compared with delayed breast reconstruction have emerged (*Morrow M et al, 2001*).

Although immediate breast reconstruction may be conceptually appealing for both patient and surgeon advice and subsequent decisions must be based on a sound understanding of both advantages and disadvantages of this often major surgical procedure ultimately the decision to make immediate breast reconstruction will be determined by the interplay sociodemographic, organisational, surgical and oncological factors (*Morrow M et al ,2001*).

Immediate reconstruction begins when the mastectomy complete under the same anathesia ,advantage of immediate

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reconstruction include the avoidance of any period of deformity of missing breast ,single episode surgery and from reconstructive standpoint immediate reconstruction is desirable as the mastectomy flaps are pliable and it is easier to preserve the inframammary fold rather than reestablish it later,the potential recipient blood vessels for free tissue transfer are convenient to expose if not exposed by the mastectomy and have not been damaged by postoperative scarring (*Clough .K ,Fitoussi .T ,2004*).

Breast reconstruction generally consists of two stages: restoration of the breast mound and reconstruction of the nipple–areola complex. Reconstruction of the breast mound itself can be performed with the use of either implants or autogenous tissues. The choice of technique is dictated by a variety of factors that include the size and shape of the native breast, the location and type of cancer, the availability of tissues around the breast and at other sites, the age of the patient, the patient's medical risk factors, and the type of adjuvant therapy. The final decision is often made on the basis of the patient's preference. The patient's selecting the technique and understanding its nature will result in the best aesthetic result and, more importantly, maximize her satisfaction and quality of life (*Cordeiro. p 2008*).

Breast reconstructive options include:

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Alloplastic reconstruction:single staged with long term prothesis(long term implant or volume adjusting implant), alloplastic reconstruction:staged with tissue expansion with secondary exchange of expander for long term Prothesis, autologous reconstruction:regional musculocutaneous flap,latissmus dorsi musculocutaneous flap,transverse rectus abdominis musculocutaneous flap (TRAM) , autologous reconstruction:ditant flap microvascular free tissue transfere, combined autologous –alloplastic :e.g: latissmus dorsi musculocutaneous flap with implant beneath (*Cordeiro. p 2008*).

Aim of the work

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To Standardize the technique and the selection criteria for immediate breast reconstruction in cases of breast cancer.

Anatomy of female breast

Breast anatomy

The breast is located within the superficial fascia on the anterior thoracic wall .It consists of 15to20 lobes of glandular tissue of the tubuloalveolar type. Each lobe is supported by fibrous connective tissue that forms a framework. Adipose tissue fills the space between the lobes. *(Cowie A, 1974).*

Although a distinct capsule around the components of the breast is not present, subcutaneous connective tissue surrounds the gland and extends as a septum between the lobes and lobules providing support for the glandular elements. The deep layer of the superficial fascia that lies on the posterior surface of the breast rests on the pectoral fascia of the thoracic wall. A distinct space, the retromammary bursa, can be identified anatomically on the posterior aspect of the breast between the deep layer of the superficial fascia and the deep investing fascia of the pectoralis major and contiguous muscles of the thoracic wall (figure 1) . *(Romrell. L et al, 2004).*