

Oncoplastic Breast Surgery

An Essay

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*Sincerely,
Amr Shalabi*

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List of Abbreviations

AICAP	Anterior Intercostal Artery Perforator flap
BCS	Breast Conserving Surgery
BCT	Breast conservation therapy
CT	Computerised Tomography
DCIS	Ductal Carcinoma in Situ
DICAP	Dorsal Intercostal Artery Perforator flap
DIEP	Deep Inferior Epigastric Perforator flap
DSEAP	Deep Superior Epigastric Artery Perforator flap
ELTDF	Extended Lateral Thoracodorsal Flap
FISH	Fluorescent in Situ Hybridisation
FNAC	Fine-Needle Aspiration and Cytology
ICAP	Intercostal Artery Perforator flap
ILTDF	Inferior-based Lateral Thoracodorsal Flap
LICAP	Lateral Intercostal Artery Perforator flap
LM	lateral mammaplasty
MRI	Magnetic resonance imaging
NAC	Nipple Areola Complex

NSM	Nipple-Sparing Mastectomy
OBS	Oncoplastic Breast Surgery
OPS	Oncoplastic Surgery
RF	Rhomboid Flap
SAAP	Serratus Anterior Artery Perforator flap
SEAP	Superior Epigastric Artery Perforator flap
SF	Subaxillary Flap
SIEA	Superficial Inferior Epigastric Artery perforator flap
SLTDF	Superior-based Lateral Thoracodorsal Flap
SSEAP	Superficial Superior Epigastric Artery Perforator flap
SSM	Skin-Sparing Mastectomy
TAIF	Transverse Abdominal Island Flap
TDAP	Thoracodorsal Artery Perforator flap
TNM	Nodes Metastasis
TRAM	Transverse Rectus Abdominus Myocutaneous flap

INTRODUCTION

The World Health Organization has ranked breast cancer as the most common type of cancer among women world-wide. The incidence rates of breast cancer vary worldwide, with higher rates in North America, Northern and Western Europe; intermediate rates in South America and Southern Europe; and lower rates in Africa and Asia (**Ferlay et al., 2008**).

Breast cancer accounts for 38% of all new cancer cases among women living in Egypt. The age standardized rate (ASR) for breast cancer incidence in Egypt is 37.3 compared to 76 in the United States. Although incidence remains significantly lower than in highly developed countries, rates are steadily increasing (**Dey et al., 2010**).

Surgery remains the mainstay of treatment for breast cancer despite recent and continuing advances in medical treatment (**Jacqueline Lewis, 2011**).

Once a diagnosis is made, a treatment plan is formulated for each individual patient. The multidisciplinary approach for breast cancer is used in planning treatment and all available options are considered in order to optimise cancer control (**Jacqueline Lewis, 2011**).

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This may involve surgery, endocrine therapy, chemotherapy and radiotherapy. Adjuvant therapies are usually offered after surgery but can sometimes be given beforehand when it is termed neoadjuvant (**Jacqueline Lewis, 2011**).

Surgical treatment is aimed at removal of the whole tumour with clear margins. Breast conserving operations remove the tumour with a rim of surrounding normal tissue and leave behind the rest of the breast tissue. Mastectomy is recommended for large tumours, widespread, multifocal or advanced local disease. Removal of lymph nodes from the axilla (armpit) on the side of the tumour is used to determine further treatment and prognosis (**Jacqueline Lewis, 2011**).

Reconstruction of the partial defect after wide local excision or mastectomy is possible. The most common operations offered for breast cancer are:

Breast conserving procedures:

- Wide local excision
- Lumpectomy
- Quadrantectomy or Segmentectomy
- Mastectomy
- Reconstruction of the defect after cancer excision
- Axillary lymph node removal (**Jacqueline Lewis, 2011**).

Introduction

Through different approved studies, a methodological approach was developed to improve multidisciplinary cancer therapy to evaluate, treat, and study women with breast cancer. This scientific approach has become an accepted cornerstone for obtaining optimal patient outcomes and is similarly relevant to the introduction of new oncoplastic surgical techniques **(Fisher et al., 2002)**.

Oncoplasty originally defined as an assortment of volume replacement techniques performed by plastic surgeons to replace all or part of the resected breast volume with myocutaneous tissue flaps, the definition of oncoplastic surgery has more recently been expanded to include a wide range of volume displacement or volume redistribution procedures performed by breast surgeons and general surgeons to optimize breast shape and breast volume following breast cancer surgery **(Rew, 2005)**.

Also included in the definition of “oncoplasty” is the surgical correction of breast asymmetry achieved by reducing or reconstructing the contralateral breast. The emergence of oncoplastic surgery reflects a growing appreciation for the importance of breast cosmesis and the willingness of many surgeons to obtain advanced training to improve cosmetic outcomes for their patients **(Rew, 2005)**.