

# Assessment of Mastectomy Flap Fixation in Reducing the Seroma Formation in Breast Carcinoma Patients

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General Surgery

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رَبِّقَدْ أَتَيْتَنِي مِنَ الْمَلِكِ  
وَعَلَّمْتَنِي مِنْ  
تَأْوِيلِ الْأَحَادِيثِ فَاطِرَ  
السَّمَاوَاتِ وَالْأَرْضِ  
أَنْتَ وَلِيِّي فِي الدُّنْيَا  
وَالْآخِرَةِ تَوَفَّنِي مُسْلِمًا  
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## List of Abbreviations

<b>APBI</b>	Accelerated partial breast irradiation
<b>AC</b>	Adriamycin and Cyclophosphamide
<b>ASC</b>	American Cancer Society
<b>AJCC</b>	American Joint Committee on Cancer
<b>ADCC</b>	Antibody-dependent cellular cytotoxicity
<b>APO</b>	Apoprotein
<b>ADC</b>	Apparent diffusion coefficient
<b>AIs</b>	Aromatase inhibitors
<b>ADH</b>	Atypical ductal hyperplasia
<b>ALH</b>	Atypical lobular hyperplasia
<b>ALND</b>	Axillary lymph node dissection
<b>BMI</b>	Body mass index
<b>BCS</b>	Breast conserving surgery
<b>BCT</b>	Breast conserving therapy
<b>BI-RADS</b>	Breast Imaging Reporting and Data System
<b>BSGI</b>	Breast-specific gamma imaging
<b>CEA</b>	Carcino embryonic antigen
<b>CVS</b>	Cardiovascular system
<b>CNS</b>	Central nervous system
<b>CHO</b>	Choline-containing compounds
<b>CBE</b>	Clinical breast examination
<b>C T</b>	Computed tomography
<b>CNB</b>	Core needle biopsy
<b>C C</b>	Craniocaudal
<b>CMF</b>	cyclophosphamide, methotrexate, and fluorouracil
<b>DWI</b>	Diffusion-weighted imaging
<b>DITI</b>	Digital infrared thermal imaging
<b>DCIS</b>	Ductal carcinoma in situ
<b>DL</b>	Ductal lavage
<b>DCE MRI</b>	Dynamic contrast enhanced magnetic resonance imaging
<b>EBCTCG</b>	Early Breast Cancer Trialists' Collaborative Group
<b>EC</b>	Epirubicin and cyclophosphamide
<b>ER</b>	Estrogen receptor
<b>ECD</b>	Extracellular domain
<b>FAC</b>	5-fluorouracil, adriamycin, and cyclophosphamide

<b>FNA</b>	Fine needle aspiration
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## List of Abbreviations (Cont.)

<b>FFTP</b>	First full term pregnancy
<b>FEC</b>	Fluorouracil, epirubicin, and cyclophosphamide
<b>FUS</b>	Focused ultrasound
<b>FDA</b>	Food and Drug Administration
<b>GEP</b>	Gene expression profiling
<b>GLUT</b>	Glucose transporter proteins
<b>Gy</b>	Gray
<b>HER2/neu</b>	Human Epidermal growth factor Receptor 2
<b>HDL</b>	High density lipoprotein
<b>HIFU</b>	High-intensity focused ultrasound
<b>HR</b>	Hormone receptor
<b>ICG</b>	Indocyanine green
<b>ILA</b>	Interstitial laser ablation
<b>IDC</b>	Invasive duct carcinoma
<b>ILC</b>	Invasive lobular carcinoma
<b>LCIS</b>	Lobular carcinoma in situ
<b>LHRH</b>	luteinizing hormone-releasing hormone
<b>LHRH-As</b>	luteinizing hormone-releasing hormone agonists
<b>MRI</b>	Magnetic Resonance Imaging
<b>MLO</b>	Mediolateral oblique
<b>MM</b>	Methotrexate and mitozantrone
<b>MRM</b>	Modified Radical Mastectomy
<b>NIRF</b>	Near-infrared fluorescence optical imaging
<b>NAC</b>	Nipple-areolar complex
<b>NAF</b>	Nipple aspirate fluid
<b>NST</b>	No special type
<b>NOS</b>	Not otherwise specified
<b>OCPs</b>	oral contraceptive pills
<b>PET</b>	Positron Emission Tomography
<b>PR</b>	Progesterone receptor
<b>RT</b>	Radiation therapy
<b>RCTs</b>	Randomized Controlled Trials
<b>RFA</b>	Radiofrequency ablation
<b>ROLL</b>	Radioguided occult lesions localization
<b>SLNB</b>	Sentinel lymph node biopsy
<b>TAM</b>	Tamoxifen



<b>TZ</b>	Trastuzumab
<b>TG</b>	Triglyceride

## List of Abbreviations (Cont.)

<b>US</b>	Ultrasound
<b>VAB</b>	Vacuum-assisted biopsy
<b>VS</b>	Versus
<b>WBI</b>	Whole breast irradiation
<b>1H-MRSI</b>	Proton magnetic resonance spectroscopic imaging
<b>3D-CRT</b>	three-dimensional conformal external beam radiotherapy
<b>18F-FDG</b>	18F-Fluorodeoxyglucose
<b>99mTc</b>	Technetium-99m

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## Introduction

Breast carcinoma is a major health issue in modern society. The united states (US) National Cancer Institute estimates that 12.7% of women born today will be diagnosed with breast carcinoma during the course of their lifetime. Breast carcinoma can impact patients psychologically as well as organically, which can manifest as postmastectomy depression, increased anxiety, shame, and occasional ideas of suicide (*Stavrou et al., 2009*).

Breast carcinoma is usually treated with surgery, chemotherapy or radiation, or both. Treatment is given with increasing aggressiveness according to the prognosis and risk of recurrence (*Stavrou et al., 2009*).

Seroma is formed by acute inflammatory exudates in response to surgical trauma and acute phase of wound healing. Extensive dissection in mastectomy and axillary lymphadenectomy damage several blood vessels and lymphatics with subsequent oozing of blood and lymphatic fluid from a larger raw surface area when compared with breast-conserving procedures leads to seroma formation. Fluid accumulation elevates the flaps from the chest wall and axilla thereby hampering their adherence to the chest wall bed and delay healing (*Hashemi et al., 2004*).