Current Modalities Used in the Management of the Axilla in Cases of Breast Cancer

Essay

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By

Mai Kamal FakhryFahmy

M.B., B. CH.

Faculty of Medicine

Ain Shams University

Under Supervision of

Prof. Dr. RedaAbdEltawabEissa

Professor of General Surgery

Faculty of Medicine

Ain Shams University

Prof. Dr. Mohamed El Sayed El Shinawi

A. Prof. of General Surgery

Faculty of Medicine

Ain Shams University

Dr. Islam Hossam El-Din El-Abbassy

Lecturer of General Surgery

Faculty of Medicine

Ain Shams University

Faculty of Medicine

Ain Shams University

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الطرق الحديثة المستخدمة فيعلاج الغدد اللمفاوية الإبطية في حالات سرطان الثدي

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كلية الطب جامعة عين شمس

تحت إشراف

أ.د/ رضا عبد التواب عيسى

استاذ الجراحه العامه

كلية الطب جامعة عين شمس

أ.م.د. محمد السيد الشناوي

استاذ مساعد الجراحه العامه

كلية الطب جامعة عين شمس

د/ إسلام حسام الدين العباسي

مدرس الجراحه العامه

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Mai Kamal Fakhry

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4NAS	Four node axillary sampling
ACOSOG	American College of Surgeons Oncology Group
ALN	Axillary lymph node
ALND	Axillary lymph node dissection
ANC	Axillary node clearance
ANS	Axillary node sampling
ARM	Axillary reverse mapping
ASCO	American Society of Clinical Oncology
BMI	Body Mass Index
cALND	completion ALND
CIS	Carcinoma in situ
DCIS	Ductal carcinoma in situ
EGFR	Epidermal growth factor receptor
ER	Estrogen receptor
FN	False negative
FNA	Fine Needle Aspiration
HE	hematoxylin and eosin
HER2	Human Epidermal Growth Factor receptor
IBCSG	the International Breast Cancer Study Group
IDC	Invasive ductal carcinoma
IDC-NSTS	Invasive ductal carcinomas of no special types
IHC	Immunohistochemical
ITC	Isolated tumor cells
LABC	Locally advanced breast cancer
LCIS	Lobular carcinoma in situ
LLLT	Low-level laser therapy
LVA	lymphatic-venous anastomoses
MLD	manual lymphatic drainage
NAC	Neoadjvant chemotherapy
NICE	The National Institute for Health and Clinical Excellence
NOS	Not otherwise special
NSABP	National Surgical Adjuvant Breast Project

List of Abbreviations (Cont..)

NSABP	the National Surgical Adjuvant Breast Project
NST	No special type
PCD	Pneumatic compression devices
PgR	Progesterone receptor
pT1	primary tumors
QOL	Quality of life
RAD	Radiotherapy
RCT BCRL	Radio and Chemo Therapy Breast Cancer–Related Lymphedema
SLN	Sentinel lymph node
SLNB	Sentinel lymph node biopsy
Tc	Technetium

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INTRODUCTION

Axillary surgery is a critical part of treatment of breast carcinoma its importance is related to staging of disease; prescription of adjuvant therapy and prognoses, for years, complete axillary dissection has remained the standard approach to breast cancer lymphatic staging, its value is still high. But development of sentinel node biopsy has significantly changed the indication of the procedure ***(Luini et al., 2005).***

Today treatment of the axilla with surgery remains an integral part of the management of patients with invasive cancer. In general the minimum standard treatment of the axilla involves surgical clearance of axillary nodes from Level I and II. There is yet little evidence that axillary treatment improves survival but the issue remains controversial. The extent to which the axilla should be dissected to provide accurate pathologic information remains unclear. Some authors believe in that a complete axillary dissection (including level III clearance) is necessary to provide accurate information for staging and prognostic purposes. Opponents, however, feel that a partial axillary dissection (only level I and II clearance) reliably assesses the axillary contents and at the same time is associated with less morbidity ***(Aslan et al., 2007).***

Axillary lymph node dissection for staging the axilla in breast carcinoma patients is associated with considerable morbidity, such as edema of the arm, pain, sensory disturbances, impairment of arm mobility, and shoulder stiffness ***(Schrenk et al., 2010).***

Seroma formation after axillary dissection remains the most common early sequel to breast cancer surgery, surgical approaches have been performed to reduce seroma collection ***(Francesco et al., 2012).***

Axillary lymphadenectomy is associated with a higher morbidity of upper limb compared to sentinel node biopsy ***(José et al., 2011).***

sentinel node biopsy for breast cancer patients has recently been applied as a less invasive procedure and studies have been done to show if it could be an alternative to axillary node dissection ***(Motomura et al., 2004).***

Sentinel lymph nodes (SLNs) are defined as the first lymph nodes receiving lymphatic drainage from the primary tumour and therefore the most likely to harbor metastatic cancer via lymphatic spread. Sentinel lymph node biopsy (SLNB) is now the standard of care in patients with a clinically and radiologically clear axilla in early-stage breast cancer. There is a variety of techniques used in SLNB ***(Ahmed and Douek, 2013).***