Recent trends in management of breast cancer

Essay

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General Surgery

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الحديـــث في عـــلاج أورام الثدي

رسالة

توطئة للحصول على درجة الماجستيرفى

الجراحة العامة

مقدم من

الطبيب / جبريـل محمـد محمـد الزمامـرى

بكالوريوس الطب والجراحة

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سورة البقرة الآية: ٣٢

✍ To my father

✍ To my mother

✍ To my wife

I dedicate this work

✍ Gebril Mohamed El Zamamery

First, thanks are all due to GOD for Blessing this work until it has reached its end, as a part of his generous help throughout our life.

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Gerbil Mohamed el zamamery

Contents

List of Abbreviations

Vocabulary	Meaning
AC	Adriamycin, cyclophosphamide.
ADH	Atypical ductal hyperplasia.
AI, AIs, AIa	Aromates Inhibitors.
AP	Antro Posterior
BCT	Breast Conservative Therapy
BRCA	Breast cancer antigen.
CA	Cancer antigen.
CEA	Carcino Embryonic Antigen
CIS	Carcinoma Insitu
CMF	Cyclophosphamide Methotrexate Fluorouracil
CPM	Contra-lateral prophylactic mastectomy.
CT	Computerized Tomography
DBCG	The Danish-breast Cancer Cooperative Group
DCIS	Ductal carcinoma in situ.
DFS	Disease free survival.
DIEP	Deep inferior epigastric perforator.

Vocabulary	Meaning
DNA	Dioxy Nucleotide Adenophosphatase
EBCTCG	Early breast cancer trialists' collaborative group.
ER	Estrogen Receptor
FDG	Flurinated Glucose
ECOGT	Eastern co-operative group trial.
FAC	Fluorouracil adriamycin and, cyclophosphamide.
FASG	French adjuvant study group.
FDA	Food and drug administration.
FEC	Fluorouracil epirubicin, and cyclophosphamide.
FNAC	Fine Needle Aspiration Cytology
Her2	Human epithelial receptors-2.
HNPCC	Human non polyposis colorectal carcinoma
HRT	Hormone replacement therapy.
HSP 90	Heat shock protein 90.
ILC	Invasive Labular Carcinoma
IORT	Intra Operative Radiotherapy
LCIS	Lobular carcinoma in situ.

Vocabulary	Meaning
MAP K	Mitogen-activated protein kinase.
LN	Lymph Node
MCi	Milli Cuie
Mhz	Megahertz
LCIS	Lobular carcinoma in situ.
MAP K	Mitogen-activated protein kinase.
MRI	Magnetic Resonant Imaging
NCCTG	North central cancer treatment group.
NPV	Negative Predictive Value.
NSABP	National surgical adjuvant breast and bowel project.
NSM	Nipple sparing mastectomy.
NST & NOS	Non Special Type and Not Otherwise Specified
OCs	Oral contraceptives.
OS	Overall survival.
PARP	Polyadenosine diphosphate ribose polymerase
PET	Positron Emission Tomography
PR	Progestrone Receptor

Vocabulary	Meaning
PET	Positron emission tomography.
RFA	Radio-frequency ablation.
RFS	Relapse free survival.
RNA	Ribonucleotide Adenophosphatase
ROLL	Radio-guided occult lesion localization
SERMs	Selective estrogen receptor modulators.
SPECT	single photon emission computed tomography
SSM	Skin sparing mastectomy.
TAC	Taxotere,adriamycin,cyclophosphamide.
TC	Taxotere, cyclophosphamide.
TRAM	Transverse rectus abdominus myocutaneous flap.
SLNB	Sentinal Lymph Node Biobsy
TGF- α	Tumor Growth Factor-Alpha
TNM	Primary tumor- Lymph node- Metastasis
U/S	Ultra Sound
VEGF	Vascular endothelial growth factor.

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Introduction

Breast disease in women encompasses a spectrum of benign and malignant disorders, breast pain, nipple discharge and a palpable mass are the most common breast problems for which women consult a physician. Regardless of the type of breast problem, the goal of the evaluations to rule out cancer and address the patient's symptoms***(Kelsey et al., 2009).***

The frequency of breast cancer varies with the age of the patient and the presenting complaint, the extent of the evaluation required to accomplish this goal varies with the type of clinical problem and the patient's age, it is important to remember that 80-85% of all breast lumps are benign, especially in women less than age of 40 years. The common causes of benign breast lumps include fibrocystic breast changes, fibro adenoma, fat necrosis, and breast abscess***(Fitzgibbons et al., 1998).***

Earlier detection and more effective treatments have resulted both in an increasing percentage of small breast cancers found at the initial diagnosis and in a small decline in mortality **(*Alessandro et al., 2010).***

Noncystic masses in premenopausal women that are clearly different from the surrounding breast tissue require

histologic sampling by fine-needle aspiration, core cutting, needle biopsy or excisional biopsy. Observation for one or two menstrual cycles is only appropriate for vague asymmetry or nodularity when it is unclear that a dominant breast mass is present***(Shaaban et al., 2002).***

The extent of imaging required for the evaluation of a solid breast mass depends on the age and risk status of the patient and the degree of clinical suspicion. Imaging studies are used to define the extent of a potential malignancy and to identify non palpable masses elsewhere in the breast, findings that may influence the choice of local therapy***(Schonberg et al., 2006).***

Nipple discharge cytology is specific in cases of malignancy but often inadequate for routine assessment***(Richards et al., 2007).***

Mammography is still the modality of choice for screening of early breast cancer. Breast cancers detected by mammography are usually much smaller (earlier stage) than those detected by patients or doctors as a breast lump***(National Cancer Institute, 2007).***

Concerning recent techniques for early detection of breast cancer,magnetic resonance imaging (MRI) can give high accuracy and good localization for small masses.