Management of screen detected breast cancer

Essay

Submitted for partial fulfillment of M.S.C in general surgery

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﴿ قَالُوا۟ سُبْحَٰنَكَ لَا عِلْمَ لَنَآ إِلَّا مَا
عَلَّمْتَنَآ ۖ إِنَّكَ أَنتَ ٱلْعَلِيمُ ٱلْحَكِيمُ ﴿٣٢﴾ ﴾

صدق الله العظيم

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Abbreviations

ACS	American Cancer Society
ADH	Atypical Ductal Hyperplasia
ALND	Axillary Lymph Node Dissection
ALH	Atypical Lobular Hyperplasia
BCS	Breast Conservative Surgery
BSE	Breast Self-Examination
CBE	Clinical Breast Examination
CIS	Carcinoma in Situ
CT	Computerized Tomography
DCIS	Ductal Carcinoma in Situ
EORTC	European Organization for Researches and treatment of Cancer
FNAC	Fine Needle Aspiration Cytology
HRT	Hormonal Replacement Therapy
IARC	International Agency for researches on Cancer
LCIS	Lobular Carcinoma in Situ
LN	Lymph Node
MLO	Mediolateral Oblique
MRI	Magnetic Resonance Imagining
NOS	Not Otherwise Specified
NSABP	National Surgical Adjuvant Breast Project
PET	Positron Emission Tomography
RT	Radiotherapy
US	Ultrasound

Introduction

Introduction

Breast cancer is the most common cancer in western countries and also in Egypt. About one of every ten women will have breast cancer sometimes in her lifetime. Many studies had been carried out to evaluate the different prognostic factors such as tumor stage، nodal status, clinical stage, pathology tumor grade، hormonal receptors, and menopausal status and treatment methods. (1)

Participation in screening programs seems to lead to more appropriate disease management even for breast cancer cases treated at the same hospital. (2)

Mammographic detection of breast cancer by Breast Screen is associated with reduced breast cancer morbidity and a more favorable prognosis. (3)

Screen detected breast cancer patients appear to have more favorable prognostic features. This has implications for the application of systemic therapy in breast cancer and support the observation that screen detected breast cancer is a more indolent form of disease. (4)

One of the first surgical landmarks in breast cancer management was to realize that the survival and recurrence rates of patients who underwent a standard radical mastectomy were the same as for those patients who underwent a modified radical mastectomy. This was the initiation of the trend to introduce more conservative measures after the second half of the last century. During this period, there have been many highly significant advances in the management of patients with this disease such as the proven benefit of chemotherapy adjuvant to

mastectomy; the establishment of breast conservation surgery as primary therapeutic procedure; and most recently, the discovery of the molecular genetics bases of the origin of breast carcinoma in certain patients. (6)

Lumpectomy of the tumor with clear margins, axillary lymph node dissection and radiation therapy to the breast is the best conservative breast surgery. (8)

Aim of the Work

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Current review on the different modalities of early detection of breast cancer by screening, management modalities and its impact on patient outcome.

Review of Literature

Anatomy of the Breast

Anatomy of the breast

Anatomical features of the breast

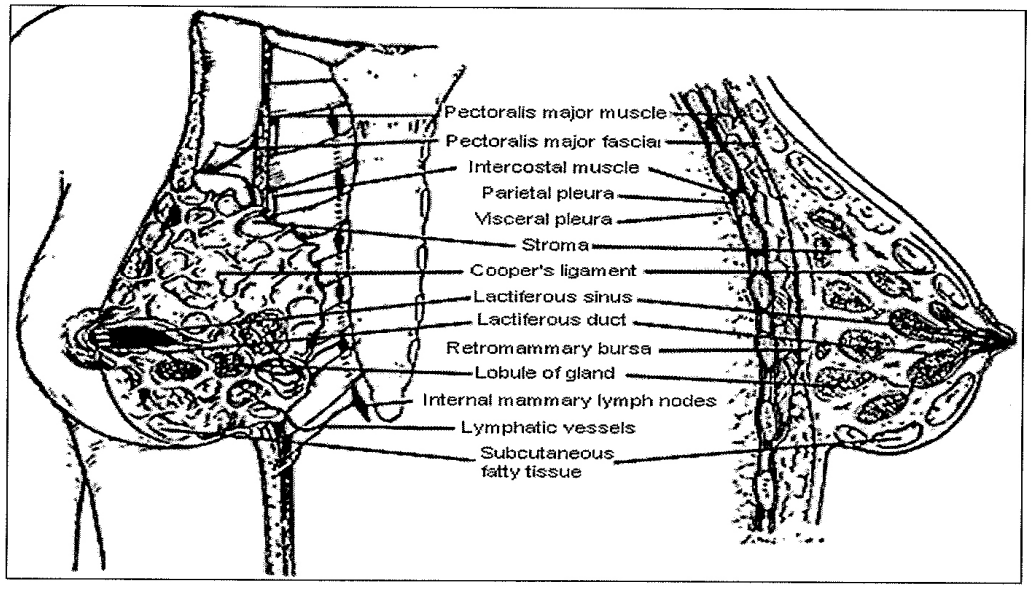

Figure 1: Tangential and sagittal views of the breast and chest wall . (16)

Understanding the anatomy of the breast and its relation to underlying chest structures is important for the successful management of breast diseases. The mature breast lies cushioned in adipose tissue between the subcutaneous fat layer and the superficial pectoral fascia.(14)

Although the adult breast varies greatly in size, its base is fairly constant anatomically, extending from the second to the sixth rib in the midclavicular line and overlying the pectoralis major, serratus anterior and external oblique muscles (fig.l). Laterally, the breast reaches midaxillary line. (15)

The axillary tail of Spence extends superolaterally into the anterior axillary fold. It is the only part of the breast beneath the deep fascia. The breast is separated from the underlying muscles by deep fascia. (17)