MANAGEMENT OF CARCINOMA OF THE BREAST

An Essay Submitted for the Partial Fulfilment of the Master Degree in General Surgery
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BY

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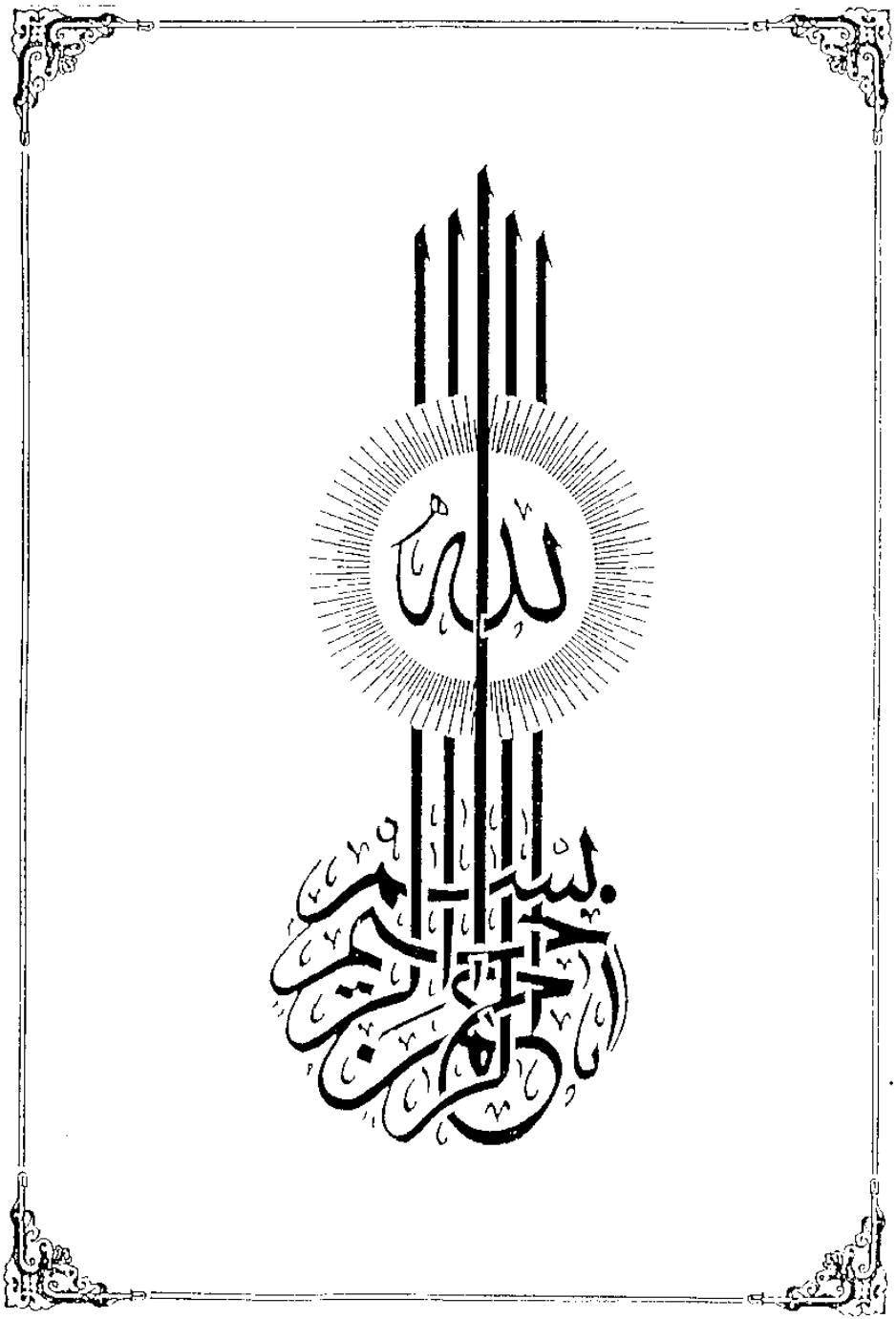

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INTRODUCTION

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Lately we have watched several changes in breast cancer, first a frequent disease seemed to become even more frequent, second there has been a much publicized media coverage of the so called lesser procedurres with claims that it obtains much the same results, and thirdly there had been at last some hope that adjuvant chemotherapy may cure at least some patients with micrometastatic disease, and thus may increase the cure rates of a disease whose outcome has not changed much in the past few decades despite advances in surgery and radiotherapy.

Certainly breast cancer is not a disease for one physician to treat but needs close cooperation between the surgeon, the radiotherapist and the chemotherapist. With the increasing complexity of treatment programs and with opposing claims we needed to review the current status of the management of breast cancer for a better understanding of this disease, knowing the advantages and disadvantages of each therapeutic modality, as well as its limitation to get the best results for all patients.

Perhaps two things will improve results of breast cancer, those are early detection and adjuvant chemotherapy.

In Egypt still facing the problem of often a late diagnosis the absence of adequate modern radiotherapy machines nation

wide. the absence of adequate facilities for chemotherapy nation-wide, the absence of screening programs, and finally the absence of sufficient follow up, all cumulate to produce worse results in treatment than abroad.

This essay is presented as a trial of updating one's knowledge of the present status of breast cancer.

PART (I):

DIAGNOSIS, STAGING, BIOLOGY AND PATHOLOGY

DIAGNOSIS AND STAGING OF BREAST CANCER

Diagnosis of Breast Cancer

1- Clinical diagnosis

In making a clinical differential diagnosis of breast lesions, it is necessary to know which are the common types of breast lesions and ttheir relative frequency, the age range of these lesions and their characteristic symptoms and signs.

The common breast lesions

Benign lesions are for more common than malignant ones in both female and male patients. Benign lesions usually account for about 60% to 80% of breast operations in the U.S.A., in the females the five most common breast lesions accounting for about 90% of those seen at surgery are: fibrocystic disease, carcinoma, fibroadenoma, introduct papilloma and duct ectasia, in males gynaecomastia is the most common lesion, in all series fibrocytic disease is the most common lesion in females in a series of 5,604 breast operations at New York Medical colleage-flower and fifth avenue hospitals between 1960 and 1975 35% of operations were for fibrocystic disease, 27% were for cancer, 18.5% were for fibroadenomas, about 8% for intraductal papilloma, 4% for duct ectasia, the rest for other lesions as lipomas, fat necrosis residual inflammattory masses etc.. (Pilnik S., and Leis H.P., 1978).

Age of patients

In the same series reported above it was found that the majority of benign lesions occurred in patients in the following age ranges: fibrocystic disease 20-49 years with a median age of 30, fibroadenomas 15 to 39 years with a median age of 20, intraductal papillomas and duct ectasia 35-55 years with a median age of 40, nearly 66% of breast cancer were clinically detected in patients over 50 years, about 83% were over 40 years, 98.5% above 30 years and less than 1.5% occurred in patients under 30 years.

Clinical picture of breast cancer

Cancer is the second most common lesion in the breast, although in Egyptian hospitals more females are seen complaining of cancer than benign breast lesions. This is only because of the ignorance of the majority of Egyptian females concerning the importance of breast complaints. Thus , they present usually when a large mass is felt of when skin or nipple changes has already occurred.

Breast cancer is unusual under the age of 30 nevertheless all women with suspecious clinical findings are to be viewed with concern what ever the age is. Clinical examination remains indespensible for detection and clinical staging of breast cancer, detectability increases with the increase in mass size and with care given in the examination. The chief complaints of patients witth breast cancer are 1- a lump 2- pain 3- nipple symptoms

(e.g. discharge, retraction etc...) 4- skin symptom (dimpling, redness, orange peel skin etc...) 5- other symptoms as arms pit lumps, arem edema ec...

1- Mass

A lump or mass is the mostt common complaint it is the initial symptom in about 70% of patients and this lump is discoverred by the patient hereself in about 90% of cases (Giuliano A.E., 1983). Lumps due to cancerr are usually solid, hard irregular, poorly delineated nonmobile and in advanced cases may show either tethering or fixation to skin, pectoral fascia, muscle or even chest wall while fibroadenomas and the cysts of fibrocystic disease are usually easily distinguished, the greatest problem in the clinical diagnosis of breast cancer lies in the differentiation of malignant tumours from the benign lumps of fibrocytic disease.

2- Pain

A less frequent symptom is pain and while the most common cause of breast pain is fibrocystic disease, this pain is cyclic and increases in the premenstrual phase and is usually bilateral. However pain andtenderness not related to the menstrual cycle especially if unilateral is often due to cervical or dorsal radiculitis or to costocondral chondritis cancer rarely causes pain. Usually the pain is due to some other cause which prompts the patient to examine her breast and thereby find a lung.

3- Nipple discharge

Nipple discharge ranks second to a lump as the initial complaint, to be of significance nipple discharge should be true, spontaneous and nonlactational, a true discharge comes through a mammary duct or ducts and appears on the surface of the nipple. This should be differentiated from pseudodicyarges that can occur in patients with inverted nipples, eczematoid lesions, traumatic erosions, Montgomery gland infections and mammary duct fistulae these pseudodicharges does not issue from mammary ducts but occur on or near the surface of the nipple and thus can mimic a true discharge. Further for the discharge to be significnt it should be spontaneous. The so-called nonspontaneous discharge occur when firm squeezing of the nipple and subareolar area may resultt in the expression of a drop or two of cloudy milky gray or green thick, fluid. This can occur in patients taking oral contraceptive pills, phenothiazines, tricyclic antidepressants, methyldopa, reserpine or those who are perimenopausl or have been recently castrated,, it also occur in some patients for some months or even 1-2 years following pregnancy and finally in patients with amenorrhea galactorrhea syndromes. In all of these cases the discharge is milky and nonspontaneous and is called galactorrhea. These patients should be reassured that this does not mean breast pathology. Nipple discharge of significance (i.e., true, spontaneous, persistent and nonlactotional can be eitherr milky, multicolored and sticky purulent, clear (watery), yellow (serous), pink (serosanguineous) and bloody (sanguineous). Milky discharge

(6) Xeroradiography are more easily interpreted without special means of viewing.

Wolfe J.N. (1978), emphasized that diagnostic errors in mammography are most likely to occur in women whose breast are small dense and severly involved by fibrocystic disease adding that xeroradiography successed in such dense breasts where conventional mammogram fail, inspite of all this Donovan A.J. 1983, emphasized that only for the inexperienced do. The details of intrammary anatomy appear more clearly on the xeroradiograph but for the experienced radiologist the diagnostic accuracy of the two techniques are comparable.

The role of mammography in breast cancer diagnosis must be well understood. It is mainly a screening technique for early detection of breast cancer before a mass can be palpated. It is the best method at the present time for detecting early breast cancer, it is hoped that by early detection more cures can be obtained.

On the other hand its rrole in diagnosis of the nature of a palpable breast mass is limited because when mammogram are obtained of a breast with a mass that is cancer. The mass will not be diagnosed as cancer by the radiography (i.e., false negative) in well over 10% of cases. The incidence of false negative and equivocal results is too high to make mammography a reliable technique for exclusion of breast cancer when a mass lesion is palpable in addition the small breast that does

results make it unacceptable method to exclude a diagnosis of cancer.

4- Open biopsy

Open biopsy of the breast may be excisional or incisional. Open biopsies are indicated in brest masses, cases of suspecious kmammogram and cases of nipple dischrge especially if needle aspiration or core biopsy fails to prove the presence of cancer. But some use and prefere open biopsies right from the start. Both false positive or false negative results are almost unheared of. Most surgeons prefer excisional biopsy whenever possible, however both Camarata A. et al., 1978 and Donoran A.J., 1983, seen to agree on the following indications for both types. An excisional biopsy is: (1) Favoured whenever the primary tumour can be grossly encomposed by the excisional biopsy procedure, this would mean usually a tumour more or less centrally located and less than 3 cm in diameter. (2) If incisional biopsy proves inadequate for establishing the diagnosis (especially in equivocal cases). (3) In cases of nipple discharge the whole lactiferous duct and a surrounding lobule of breast tissue is excised. (4) In lesions thought clinically to be a benign tumour (e.g. fibroadenoma) because in these cases excisional biopsy is both diagnostic and therapeutic.

On the other hand an incisional biopsy is indicated in: (1) cses of bulky tumours where excision might result in a biopsy cvity that approches the margins of a subsequent mastectomy, also