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Clinical Evaluation Versus Pathological Findings of Axillary Lymph Node Metastases in Breast Carcinoma

THESIS

Submitted in Partial Fulfillment for Requirement of the *M.D. Degree* in General Surgery

By
Younis Nageb Ahmed
M. B. B. Ch. - M. S. (General Surgery)

Supervisors Prof. Dr. Medhat M. Sabet

Head of Surgical Department
Faculty of Medicine
Minia University

Dr. Hamdy M. Abd El Moniem
Assistant Prof. of General Surgery
Faculty of Medicine
Minia University

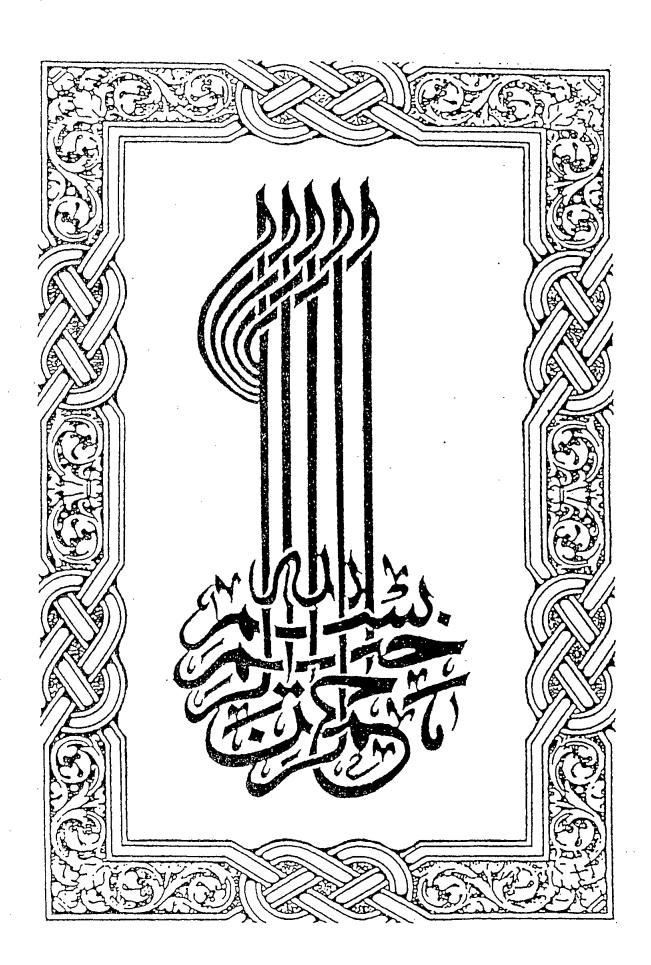
Dr. Wafaa F. Aref
Assistant Prof. of Pathology
Faculty of Medicine
Minia University

Dr. Dahi M. Touni
Assistant Prof. of General Surgery
Faculty of Medicine
Minia University

Faculty of Medicine
Minia University

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INTRODUCTION AIM OF THE WORK

INTRODUCTION AND AIM OF THE WORK

Carcinoma of the breast is the most common site specific neoplasm in women and is leading cause of death from cancer in females 40 to 44 years of age. Breast cancer represents 26 percent of all female cancers and is resposible for 18 percent of cancer related deaths in women (Copeland III, and Bland, 1987).

Cancer of the breast is the most frequent cancer among the Egyptian females and constitutes 25.5% of all their cancers. (Aboul-Nasr, 1982). A 12 years reports (1970 - 1981), from the National Cancer Institute, (NCI) Cairo, showed that breast cancer is the most frequent malignancy among females attending the institute, accounting for 34.7% of all female cancer cases, and 14% of all cases of cancer registered. (Ibrahim and Aref, 1983).

In breast cancer, the axillary lymph node status became one of the most important parameters for descripitive evaluation of the disease: the international classification assessed by the International Union Against Cancer (UICC) as well as the American clinical staging employed by the American Committee in cancer staging or the Columbia clinical classification handled by Haagensen are based upon the clinical examination of the axilla. Moreover the axillary lymph node status is widley employed for prognostic purposes. (Sacre, 1986).

Hutter (1980), and Clayton and Hopkis (1993) have emphasized that one of the most significant discriminants in predicting prognosis is the presence or absence of axillary node metastasis. Not only the involvement is important, but also the determination of whether the metastases are microscopic or macroscopic, the number of nodes involved, the levels at which they are involved, and whether there is extension through the lymph node capsule.

Clinical examination of the axilla is notoriously inaccurate in staging, with multiple studies demonstrating up to 30% false - positive rate and up to a 45% false - negative rate. (Chevinsky, et al., 1990). Accurate staging can therefore only be achieved by histological examination of axillary lymph nodes. There is disagreement, however, on whether pathological staging should be accomplished by lesser procedures, such as needle aspiration of nodes, axillary node samplings, level I dissections and pectoral node biopsies or by complete axillary dissection. (Ball, et al., 1992).

Fisher, et al., (1981) have noted a 21% axillary recurrence rate in patients with clinically negative axillae who received no additional treatment for that region. This recurrence rate can be reduced to 1% with complete axillary dissection.

The aim of this study is to compare the clinical assessment of the axillary lymph node metastases in 50 cases of breast cancer patients with pathological findings after complete axillary dissection.

Second aim is to study the distribution of the axillary lymph node metastases by level of invasion to show the value of complete axillary dissection.

THE BREAST

Basic consideration

The breast is a human being's insignia of membership in the class Mammalia. It is Somewhat humbling to reflect that this badge of status had its origin as a modified sweat gland. In the male the breast is, with few exceptions, a dormant structure. In the female, from puberty to death, the breast is subjected to a constant dynamic role of physical changes related to the menstrual cycle, pregnancy, lactation and the menopause (Rush, 1989).

EMBRYOLOGY

The human breast makes its first appearance in the sixth week of embryonic development as an ectodermal thickening extending from the axilla to the groin, a distinct linear elevation called mammary ridge, or milk line. Lens-shaped thickenings appear along the milk line, presaging the sites of developing breasts. In human beings the caudal two-thirds of the line disappears rapidly, and the pectoral thickening progresses with the ultimate formation of a breast primordium.

In the fifth month of embryonic development the human primordial breast develops 15 to 20 solid cords that fan out beneath the skin in the underlying connective tissue. These primary milk ducts branch, and the ends develop clubshaped dilatations. During the seventh or eighth month the ducts hollow to develop lumina. During this same period the point in the skin corresponding to the nipple