

Salwa Ak1



بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني



Salwa Ak1



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغييرات



Salwa Akl



بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل



B18464



MD Thesis

Multicentricity of Breast Cancer

**Thesis submitted for the partial fulfillment of the MD
degree in Surgery**

By:
Omar Abdel Aal
MBBch, MSc.

Supervisors:
Prof. Dr. Abdel Aziz Abbass Talab
Prof. of General Surgery,
Menoufia University

Prof. William L. Donegan
Chief, Surgical Oncology Depart
Medical College
of Wisconsin University

Dr. Hala Taha Salem
Prof. of Surgical Pathology
NCI, Cairo University.

Menoufia University
2004

Introduction

Introduction

Breast carcinoma disease constitutes a great threat to the female population all over the world (*Anastassiades et al 1993*).

Cancer breast constitutes the commonest malignant tumor in Egyptian Females as it accounts for about 34% of total malignancy (*Aref & Ibrahim et al 1988*).

Breast carcinoma is a great challenge in human oncology because the death rate has not been improved despite the great advances in diagnostic and therapeutic tools (*Anastassiades et al 1993*).

Schwartz and his colleagues (1993) define multicentricity as the carcinoma in quadrant other than the quadrant containing the primary tumor (*Schwartz et al., 1993*).

Residual cancer remaining after excisional biopsy or other non-continuous Foci of cancer in the same quadrant, even of a different histological Patterns from the primary were not considered multicentric (*Schwartz et al., 1993*).

Spinellie and colleagues (1992) stated that multicentric tumors represent a potential limit to the treatment of cancer breast by conservative surgery (*Spinellie et al., 1992*).

Dawson (1998) stated that multicentricity can be considered as a risk factor for the recurrence of contralateral breast cancer (*Dawson, 1998*).

Many women suffering of breast cancer and the loss of their precious breast seek BCT. However, not all of them are candidates of BCT and many suffer more if they are treated by other measures as completion to MRM or RM.

Aim of the work



Aim of the work

The aim of this work is the determination of the site of occurrence of multicentricity in Egyptian patients by pathological examination of mastectomy specimens in trial to determine the relative distribution of MCF and the primary (index) cancer.

This will be analyzed with variable clinical and pathological factors, as well as with DFS and over all survival for 18 months.



ANATOMY OF THE BREAST

The breast or mammary gland is a *modified apocrine sweat gland* (Mcminn, 1990). The mammary gland is one of the characteristic features of the 'Mammal'. Indeed, the term 'mammal' derived from the *Latin* Mamma, the breast. It should be noted that the term "mammary gland" and "Breast" are not exactly synonymous, although they will be used in this way for convenience in this work. The word "breast" refers to the mammary gland, plus the additional connective tissue elements and fat that surrounds and supports the gland. Although presents in both sexes, but it is rudimentary in the male. In girls it is undeveloped until puberty, then undergoes considerable growth and differentiation, which is particularly marked during pregnancy and lactation (Ellis et al;1993).

Embryology of the breast:

The breast is a group of large glands derived from the epidermis and lying in a network of fascia derived from the dermis and superficial fascia. During the second month of gestation two bands of slightly thickened ectoderm appear on the ventral body wall extending from above the axilla to below the groin. These are mammary ridge or milk lines and represent potential mammary gland tissues. The nipple itself is a local proliferation of stratum spinosum of the epidermis (Skandalakis et al, 1983) (Fig,1).

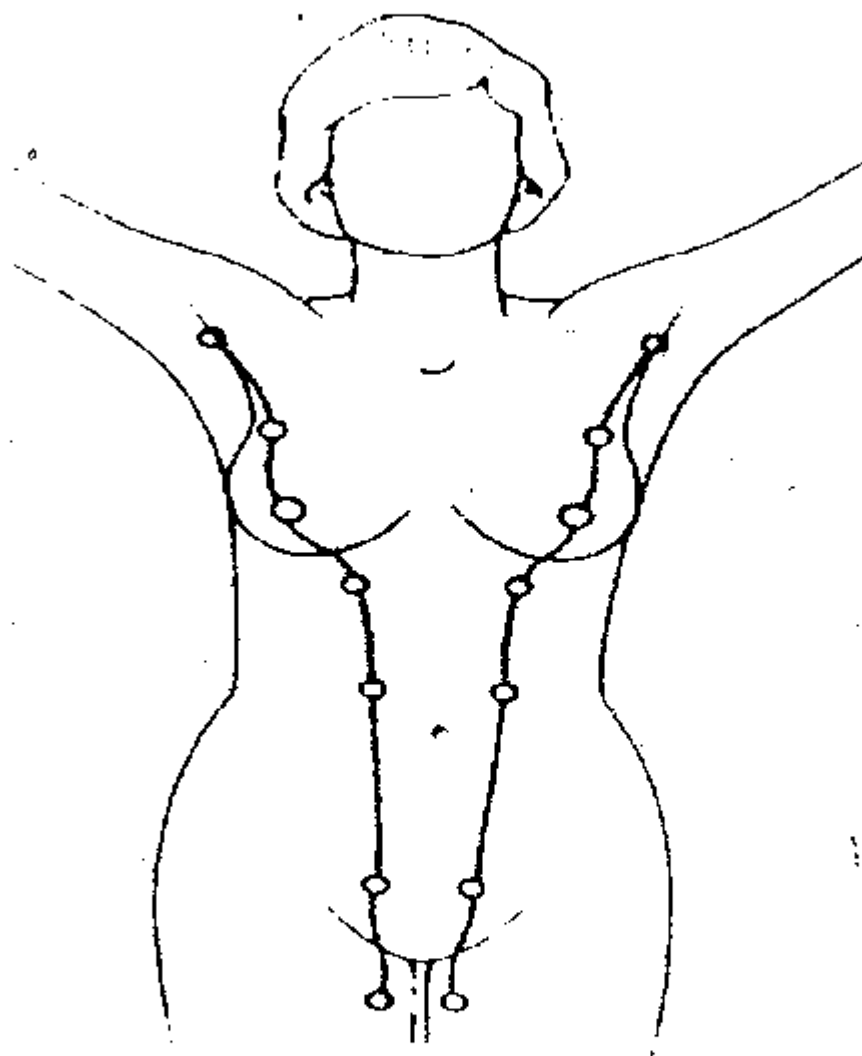


Fig (1): Showing milk line mammary glands normally develop in human from the pectoral protein of the line (*Skandlakis et al., 1983*)

In Humans most ridges disappear except the area around the chest wall at the definite site of the adult nipple. Here, cords of the epithelium extended into the underlying mesoderm as solid epithelial columns comprising some 15-20 branches. The epithelial system becomes surrounded by invading mesenchyme, which develops into the supporting connective tissue and fat of the breast. During the last 8 weeks of fetal life the solid ducts become canalized and the epidermis at the point of origin of the gland from a depression "The mammary pit" into which the lactiferous tubules open. At about the time of birth, this pit evaginates to form the definitive nipple (Fig2)(Ellis et al ;1993).

Fig. (2): DFS in relation to multicentricity

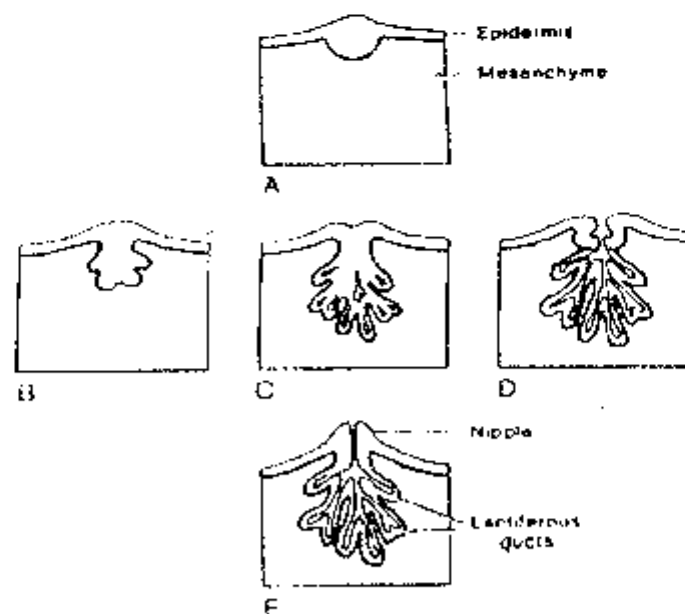


Fig (2): Showing development of the breast (A.d) stages in development of the duct system and potential glandular tissue from the epidermis connective tissue from the mesenchyme of dermis (E0 Eversion of the nipple giving birth (Skandlakis et al., 1983),

Topography (Gross Anatomy):

The breast or mammary gland is a modified apocrine sebaceous gland, which rests in the superficial fascia and is normally located on the ventral aspect of the thorax (Decker et al, 1986).

Extent of the breast:

The adult female breast extend from the second rib *superiorly* (or the upper aspect of the third 3rd rib) to the six rib *inferiorly*. It's *medial* border extends to the *lateral border* of the sternum and it's lateral border reaches the midaxillary line. *Superolaterally* the breast tissue extends as a projection into the lower axilla around the lateral border (inferior) of the Pectoralis major muscle through an opening in the pectoral fascia (Foramen of Langer) and is called the axillary tail of Spence which passes to the level of the third rib where it is in direct contact with the main lymph nodes of the breast (*Anterior axillary lymph node*) (Decker et al., 1986).

Inferiorly it extends into the upper part of the rectus sheath and laterally it overlaps the serratus anterior muscle (Ellis et al; 1993). However, mammary parynchyma may actually reach the clavicle *cranially* and beyond the costal margin *caudally* (15%of cases).

Laterally mammary parenchyma can extend on the latissimus dorsi muscle and occasionally extends to the midline *anteriorly* (Donegan et al; 1990).