



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

*CYTOLOGICAL EVALUATION OF MALIGNANT
CELLS IN DRAINED FLUID AFTER BREAST
SURGERY FOR MALIGNANT LESIONS*

Thesis

Submitted to the Faculty of Medicine

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By

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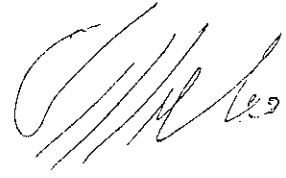
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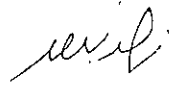


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*For the woman who made
me, my mother, for the man
who taught me to be a man,
my father, for my great little
sister & brother, for my
sister's future baby, for my
fiancée, and for the soul of
my grandfather.*

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INTRODUCTION

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EPIDEMIOLOGY

Breast cancer is the most common malignant tumor among women. In many countries it is the leading cause of death from the malignant diseases among women. It occurs 100 times more often in women than in men. Considering the location in the breast, cancer occurs more often in the outer upper quadrant (38.5%).⁽¹⁾

The likelihood of breast cancer development is highly dependent on both age and the interval over which an individual is at risk. Although the lifetime risk of breast cancer development is estimated at 10%, more than one half of patients with breast cancer are older than 65 years. A useful way to present the concept of risk to patients is to consider risk starting at a particular age and extending over a future interval of time. For instance, the chance that breast cancer will develop in a woman age 35 years during the next two decades of her life, until age 55, is only 2.5%. A woman who is 50 years old has close to a 5% chance of cancer development before she turns 75 years old, and a 65-year-old woman has a 5.5% chance of getting breast cancer before she turns 85 years of age.⁽²⁾

One of nine women in the United States will develop breast cancer in her lifetime; a third of these women will succumb to the disease, resulting in more than 44,000 deaths each year.⁽³⁾

There are great geographical differences in the number of newly discovered cases, and there is even distribution countries of high risk (North America and North Europe), middle risk (South America and South Europe) and low risk countries (Asia and Africa).⁽¹⁾

Five to 10% of breast cancer is attributable to inheritance of an autosomal dominant gene. Breast cancer is uncommon before age 25 years, but then there is a steady rise to the time of menopause, followed by a slower rise throughout life.⁽⁴⁾

Natural History of Breast Cancer

The oldest record of breast cancer is a papyrus believed to be written by Imhotep who was proclaimed as a God in ancient Egypt. Hippocrates (400 BC) believed that breast cancer was a systemic disease and warned that surgery may have harmful systemic effects.⁽⁵⁾

Dr. LeDran⁽⁶⁾ (1685-1770) was likely to be the first to associate poor prognosis with the spread of breast cancer to the regional axillary lymph nodes. Rudolf Virchow^(6,7) postulated that breast cancer spreads along fascial planes and lymphatic channels. Little importance was given to the hematogenous spread of cancer.

In 1894, Halsted⁽⁸⁾ described, for that period of time, superior local control of disease by en bloc radical mastectomy which included total

removal of affected breast, total ipsilateral axillary lymph node dissection in levels I-III, resection of pectoral major and minor muscles.

Halsted^(8,9) argued that resection of a node-negative breast cancer was curative, believing that such tumors were extirpated before distant spread through the lymphatic occurred. Halsted also mentioned that the extent of both the mastectomy and axillary dissection were important determinants of outcome. Therefore, breast cancer recurrence and distant metastases often were attributed to inadequate surgery.

One important observation was inconsistent with the Halsted paradigm. About 30% of node-negative breast cancer patients die of metastatic disease within 10 years after surgery. This finding suggests that the lymphatic are not the only source for the distant spread of cancer.⁽¹⁰⁾

Some proposed that metastatic spread through the internal mammary and supraclavicular lymph node chains might account for distant relapse in women whose axilla were free of nodal involvement. Extirpation of these additional nodal chains failed to improve outcome, however, and these more extensive lymphadenectomies were soon abandoned.^(11,12)

By the latter half of the twentieth century, many surgeons regarded the radical mastectomy as too debilitating, and several centers were reporting good outcome with less extensive surgery.^(13,14)

These lesser procedure also included the modified radical mastectomy (MRM) which spread the pectoralis muscle and breast conservative surgery. The trend toward less radical surgery was attributable to two important factors. First, surgeons during the latter half of the twentieth century were seeing patients with smaller tumors, and these were often amenable to local excision. Second, there were improvements in radiotherapy (RT) techniques.⁽¹⁵⁾

In 1955 Engell⁽⁵⁾ published proof of hematogenous dissemination of malignant cells. This research pushed efforts for systemic chemotherapeutic agents and immunotherapeutic agents for the treatment of metastatic breast cancer.

Fisher^(16,17) argued that “because operable breast cancer is a systemic diseases involving complex spectrum of host tumor interaction, locoregional therapy is unlikely to affect survival. Fisher’s hypothesis however is not universally accepted. Hellman⁽¹⁸⁾ postulated that “persistent disease, locally or regionally, may give rise to distant metastasis and therefore, in contrast to the systemic therapy locoregional therapy is important.

Despite the abundance of clinical knowledge of breast cancer; this knowledge has failed to help in either curing or predicting the outcome of malignant breast disease. Among clinicians, the most feasible factors that would substantiate a good or fair prognosis are: early diagnosis, proper