A CORRELATION BETWEEN FINE NEEDLE ASPIRATION CYTOLOGY, HISTOPATHOLOGY AND NUCLEAR DNA CONTENT IN TUMORS OF THE BREAST

THESIS SUBMITTED FOR PARTIAL FULFILLMENT OF M.D DEGREE IN

PATHOLOGY

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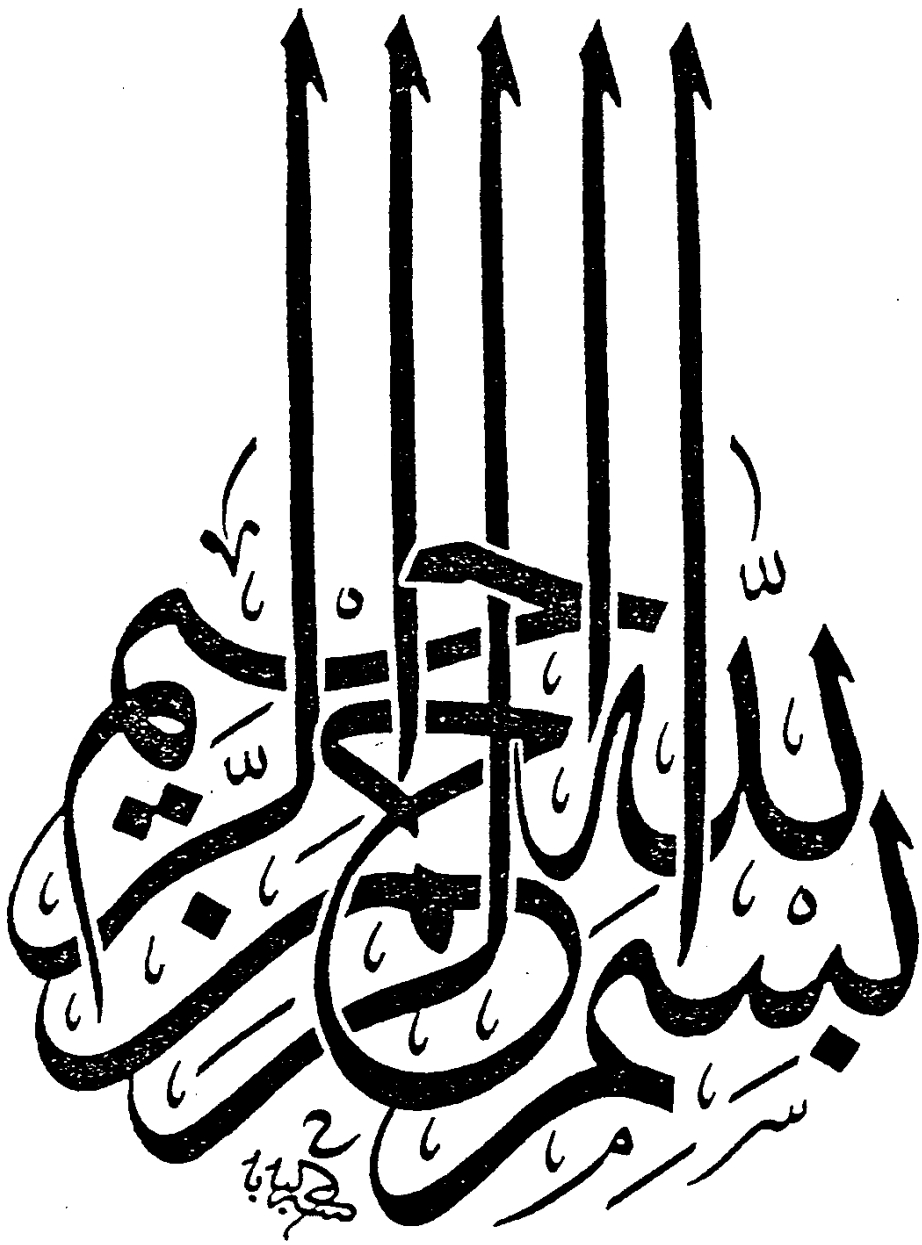

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Acknowledgment

I feel much honored to express my deepest gratitude to ***Professor Dr. Adly Farid Ghaly****, professor of pathology, Faculty of Medicine, Ain Shams University, for his suggestions, strict supervision, kind encouragement and useful valuable advises all through this work.*

My great gratitude and heartful thanks must also be expressed to ***Professor Dr. Fawzy Nageeb Gerges****, professor of pathology, Faculty of Medicine, Ain Shams University, who was too kind and helpful for me throughout his supervision .*

I would like also to express my deep gratitude to ***Professor Dr. Ragaa Ahmed Salem****, professor of pathology, Faculty of Medicine, Ain Shams University, for offering me much of her time and for her great help and advice all through this work.*

I would like to express my thanks to ***Dr. Ragaa Amin Fawzy****, Assistant professor of pathology, Faculty of Medicine, Ain Shams University, for her help in this work.*

I would like to express my heartful thanks to ***Dr. Maged Abdel Karim El-setouhy****, lecturer of Community, environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, for his great help, encouragement and support all through this work.*

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INTRODUCTION

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Introduction

Lesions of the breast are confined to the female because of the more complex breast structure, the greater breast volume and extreme sensitivity to endocrine influences. Most diseases of the breast take the form of palpable painful nodules or masses (Robbins et al.,1994).

Breast cancer is a common problem that is destructive of women in their prime of life. Statistical reports from National Cancer Institute in Cairo show that breast cancer accounts for 34.8% of the total malignant diseases among Egyptian females (Ibrahim, 1984).

Fine needle aspiration of the breast is highly accurate, inexpensive, well tolerated by the patients and quick diagnostic method (Yolanda, 1978). The breast is one of the common sites for aspiration biopsy. The technique of breast aspiration is so simple, rapid and free of major complications (Kenneth, 1990).

Probable lesions of the breast are among the most accessible targets of aspirates that have been extensively used in various institutions for many years (Franzen and Zajicek, 1968 ; Rajdic, 1971 and Stavric et al, 1973).

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The most obvious target of diagnostic aspirates is a clinically obvious, inoperable carcinoma of the breast to be treated by radiotherapy and hormonal manipulation (Mossler et al., 1982). Conventional subjective microscopical interpretations of tissue images allow in many cases a clear statements on benignity or malignancy of a tissue lesion. However, there is a group of lesions where subjective methods are not reliable to put a clear statement, this group is called border-line lesions.

Examination under microscope is considered to have the highest level of certainty in tumor diagnosis. Different grades of dysplasias only represent different probabilities that the respective change may develop into manifest cancer or may be already malignant, although the microscope images shows no evidence (Tavasoli, 1992).

Many recent investigations have demonstrated the diagnostic and prognostic validity of the DNA content in the breast cancer. During recent years DNA cytometry has frequently been used to characterize polidy pattern and cell kinetics in breast cancer in relation to clinical and histopathologic parameters (Dowle et al., 1987).

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AIMS OF THE STUDY

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