

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





بعض الوثائق الأصلية تالفة





بالرسالة صفحات لم ترد بالأصل



DNA PLOIDY IN RELATION TO DIFFERENT PROSTATIC CARCINOMA CLASSIFICATIONS

Thesis

**Submitted for partial fulfillment of Master degree
In *PATHOLOGY***

By

AMIRA MOHAMED EL-SHERIF

M.B., B.Ch., Menoufiya University

Supervised By

Prof. Dr. KAWTHER AMIN AMER

**Professor and Head of Pathology Department
Faculty of Medicine, Menoufiya University**

Prof. Dr. FATEHIA ABOUL-ELA

**Professor of Pathology
National Cancer Institute, Cairo University**

**FACULTY OF MEDICINE
MENOUEFIYA UNIVERSITY**

1995

APPROVAL SHEET

DNA PLOIDY IN RELATION TO DIFFERENT PROSTATIC CARCINOMA CLASSIFICATIONS

*Submitted in Partial Fulfillment of the Requirements
for Master Degree in Pathology*

By

Amira Mohamed El-Sherif

Approved By

Prof. Dr. Kawther Amin Amer

Professor and Head of Pathology Dept.,
Menoufiya University

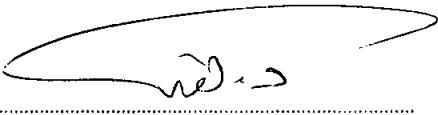
Prof. Dr. Gamal Nada

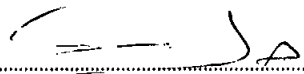
Prof. of Pathology, Cairo University

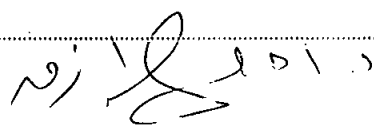
Prof. Dr. Eglal Abd El-Razeq

Professor and Head of Pathology Dept.,
Ain Shams University

Approval Signature :

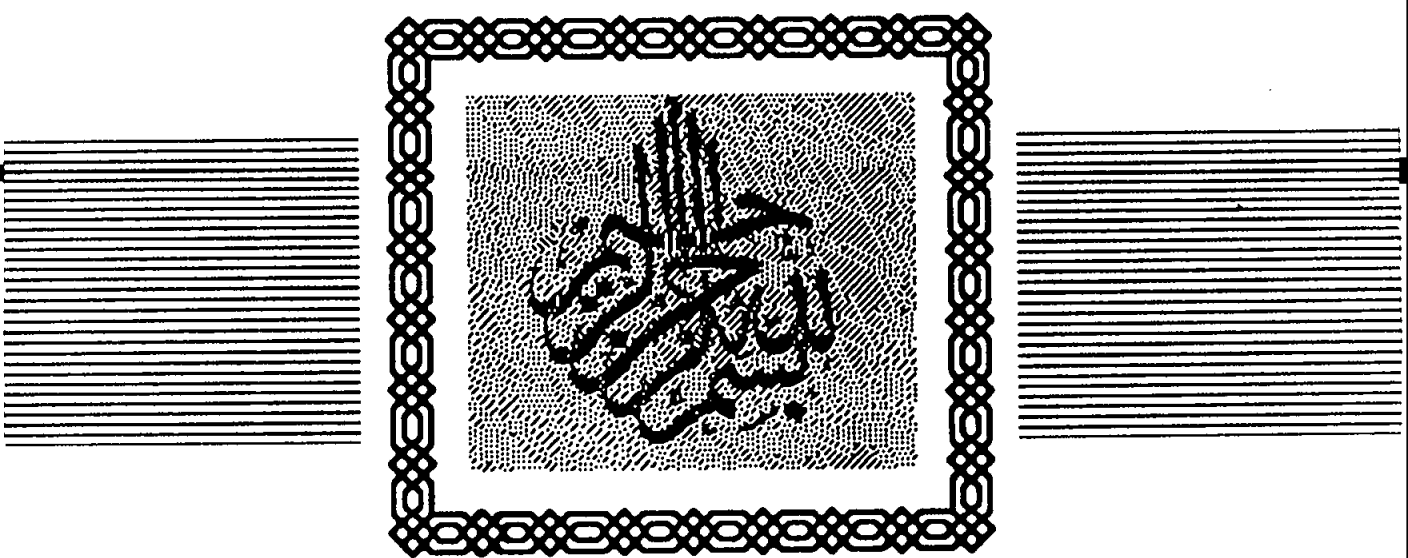
Prof. Dr. 

Prof. Dr. 

Prof. Dr. 

(Committee in Charge)

Date : 5/7/1995



Acknowledgement

My all thanks to GOD for helping me to complete this study.

I wish to express my appreciation and deep gratitude to Prof. Dr. Kawther Amer, Professor and Head of Pathology Department, Faculty of Medicine, Menoufiya University for her kind advices, valuable supervision and continuous guidance in conducting this work.

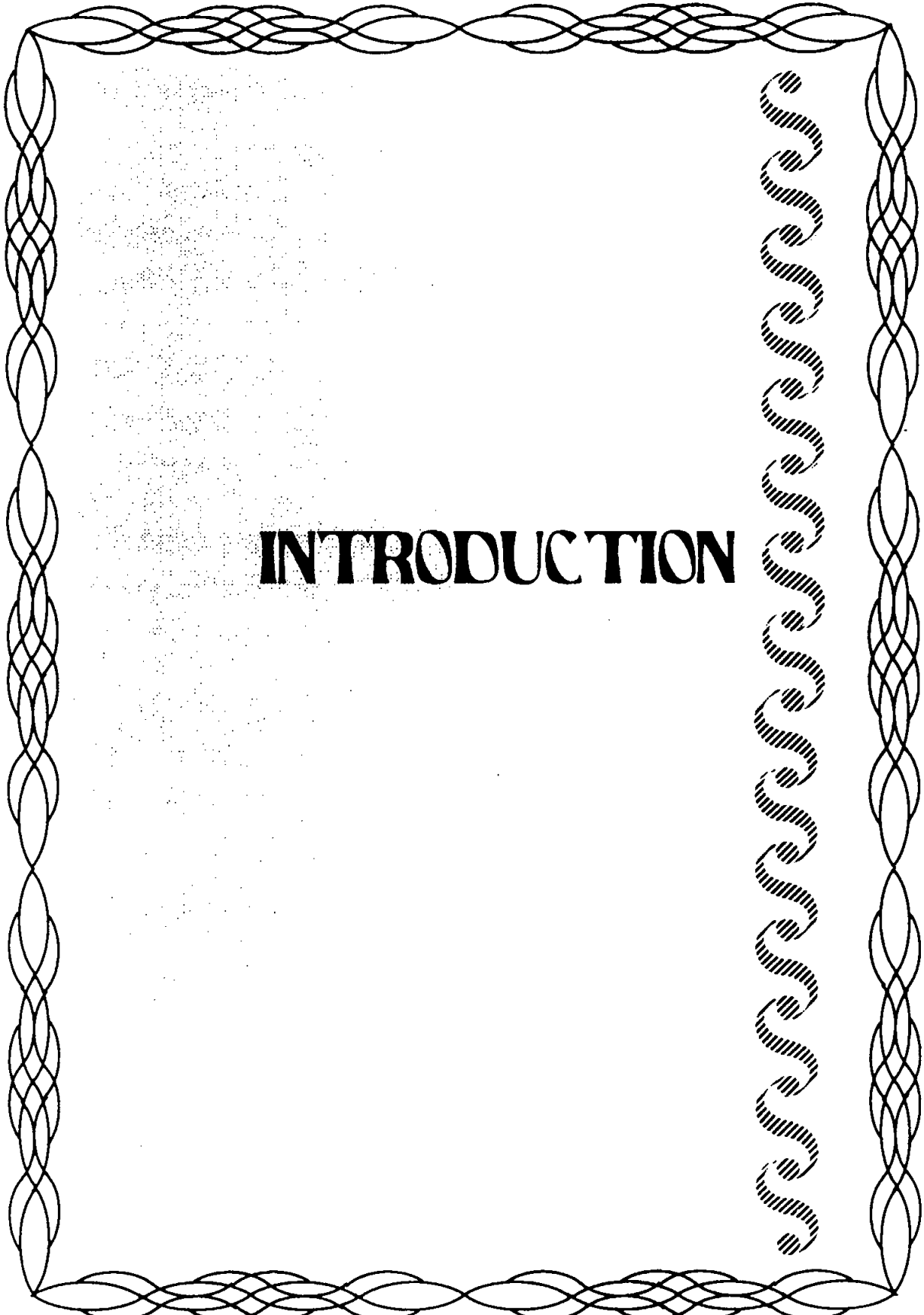
I am indebted to Prof. Dr. Fatehia Aboul-Ela, Professor of Pathology, National Cancer Institute, Cairo University for her useful advices and unlimited help during this work.

Sincere thanks to my parents, my husband and my son for their kind encouragement.

Great thanks are due to Mr. Ezzat M. Makar for his help in typing this thesis.

CONTENTS

Topic	Page
Introduction	1
Aim of the Work	3
Review of Literature	4
<i>Pathology of prostatic carcinoma</i>	4
a) Incidence	4
b) Aetiology	4
c) Clinically	8
d) Pathological features	11
e) Prognosis	44
f) Methods of diagnosis	45
<i>Cytophotometric review</i>	47
I. Cytophotometry and DNA	47
II. Cytophotometry in oncology	64
III. DNA studies in prostate	67
Material and Methods	86
Results	98
Discussion	139
Summary	149
Conclusion	152
References	153
Arabic Summary	



INTRODUCTION

INTRODUCTION

In Egypt prostatic carcinoma represent 39.84% of male genital tract malignancy as reported in the Cancer Pathology Registry, National Cancer Institute (Mokhtar, 1991). In U.S.A., it is the second cause of cancer deaths in males. Histologically, most prostatic malignancies are adenocarcinoma of varying degrees of differentiation (Kumar et al., 1992)

Several grading systems have been described based on the degree of nuclear anaplasia (Mostofi, 1975), degree of glandular differentiation and growth pattern of the tumour (Gleason, 1977) or according to the percentage of gland formation (Brawn et al., 1982). In general there is a good correlation between the degree of differentiation and prognosis (Kumar et al., 1992).

Ploidy level, as determined from quantitative cytophotometric DNA analysis of Feulgen stained tumour cell nuclei, is another accurate method, that can be used to discriminate low from high grade malignant tumour. It was found that low grade malignant variant had DNA distribution similar to those of normal or benign prostatic cells, as most of the low grade

.....

malignant nuclei had DNA values in the diploid or in the tetraploid region. On the other hand, most of the tumour cell nuclei of the high grade malignant tumours were outside these regions (aneuploid). However, the degree of prognostic information provided by ploidy level in relation to other prognostic parameters as histologic grade, is still somewhat unclear (Forsslund and Zetterberg, 1990).

**AIM OF
THE WORK**

AIM OF **THE WORK**

The aim of the present work is to study DNA content by single cell cytophotometry in various histopathologic grades of prostatic adenocarcinoma using different methods of classification. Also, it aims to evaluate the role of this technique in predicting the best method of classification that can give an idea about the ploidy state and the biologic behaviour of this malignancy.