Morphometric and DNA image analysis of endometrial hyperplasia and carcinoma

Thesis Submitted for fulfillment of M.D.degree in

Pathology

Presented by

Noha Nazeeh Mahmmoud

M.B, B.Ch, M.Sc Cairo University
Specialist of Pathology
National Research Center

Supervised by

Prof. Dr. Ahmed Mohamed Yehia El-Hennawy

Professor of Pathology
Faculty of Medicine
Cairo University

Prof. Dr. Naglaa Fathy Abbas

Professor of Pathology
National research center

Prof. Dr. Sonia Labib El- Sharkawy

Professor of Pathology
National research center

Faculty of Medicine

Cairo University

2013

*** قالوا سبحانك لا علم لنا إلا ما علمتنا إنك أنت العليم الحكيم ***

البقرة (٣٢)

Acknowledgement

*First of all I would like to thank **Allah** who gave me the power and patience throughout my work.*

*I would like to thank **Prof. Dr. Ahmed Mohamed Yehia El-Hennawy**, Professor of Pathology, Cairo University, for his great advice and supervision in this thesis.*

*I would like to express my gratitude to **Prof. Dr. Naglaa Fathy Abbas** Professor of Pathology, National research center.*

*Many thanks to **Prof. Dr. Sonia Labib El- Sharkawy** Professor of Pathology, National research center., for the efforts she did to complete this study.*

*Special thanks to **Prof. Dr. Marcelle Nashed** Professor of Pathology, National research center. who gave me time and support to do this work.*

*I would like also to send my greetings to **Dr.Manal Badawy**, Assistant Professor of Pathology, National research center. who helped me a lot to perform this work.*

*Special thanks to **my family** whom gave me time and support to do this work.*

Index

I- Review of literature:

List of tables

List of figures

Abbreviations

* ACEH : Atypical complex endometrial hyperplasia
* AH : Atypical hyperplasia
* AJCC : American Joint Committee of Cancer
* BrdU : bromodeoxyuridine
* CD10 : Cluster differentiation 10
* CD34 : Cluster differentiation 34
* CT : Computerized tomography
* D&C : Dilatation and curratage
* DNA : Deoxyribonucleic acid
* DUB : Dysfunctional uterine bleeding
* EMA : Epithelial memberan antigen
* EC : Endometrial carcinoma
* EIC : Endometrial intraepithelial carcinoma
* EIN : Endometrial intraepithelial neoplasia
* EM : Endomerium
* FCM : Flow cytometry
* FIA : Fluorescence image analysis
* FIGO : Federation International of Gynecology and Obstetrics
* IA : Image analzer system = ICM : Image cytometry
* IOD : Integrated Optical density
* IHC : Immunohistochemical
* LVSI : Lymphovascular space invasion
* MAH : Marked atypical hyperplasia
* ME : Menstrual endomerium