Pathological Review of Malignant Uterine Body Tumors At Ain Shams University Hospitals 2001-2005

Thesis
Submitted for the partial fulfillment of the
M.Sc. Degree in pathology
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2009

قال تعالى: (إِنَّ اللَّهَ عِندَهُ عِلْمُ السَّاعَةِ وَيُنَزِّلُ الْغَيْثَ وَيَعْلَمُ مَا فِي الأَرْحَامِ وَمَا تَدْرِي نَفْسٌ مَّاذَا تَكْسِبُ غَداً وَمَا تَدْرِي نَفْسٌ بِأَيِّ أَرْضٍ تَمُوتُ إِنَّ اللَّهَ عَلِيمٌ خَبِيرٌ)

صدق الله العظيم[سورة لقمان - الآية: 34

Acknowledgment

*First and forever, thanks for **ALLAH** helping me to begin and complete this work.*

*I would like to express my sincere gratitude and thanks to **Prof. Bothina Mahmoud Said**, Professor of pathology for her kind support and guidance to complete this work.*

*I am also, very grateful to **Prof. Ragaa Amin Fawzy** Professor of pathology for her kind supervision, scientific support and patience reviewing this work.*

*Very special thanks to **Prof. Ahmed Mohy-Elden Zaki**, Professor of pathology for his kind supervision, scientific support and patience reviewing this work.*

I also like to express my warmest thanks to all staff members of early cancer detection unit of maternity hospital specially Prof. Mahmoud Yosef head of the department and Prof. Sahar Ezz-ElArab for supplying us with the needed information for this work.

Very special thanks to Prof. Nadia Mokhtar, Professor of pathology for supplying us with information needed to complete this work.

I also like to thank all staff members of pathology department of Ain-Shams University specially Prof. Shadia Mabrouk head of the department for supporting this work.

I also like to express my warmest thanks to all staff members and colleagues in pathology department of Misr University for Science and Technology specially Dr. Mahmoud Tag Elsabah for helping and giving advice through out this work.

Finally, I should express my thanks to my family for their kind support and advice through out this work.

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List of abbreviations

CCA = Clear cell adenocarcinoma

CTCN = Coagulative tumor cell necrosis

D & C = Dilatation and curettage

EIC = Endometrial intra-epithelial carcinoma

ESS = Endometrial stromal sarcoma

FIGO = The International Federation of Gynecology and Obstetrics

HNPCC = Hereditary nonpolyposis colorectal cancer

HPF = High power fields

LMP = Low malignant potential

LVSI = Lymphvascular space invasion

MMMTs = Malignant mixed mullerian tumors

MMR = Mismatch repair genes

NOS = Not otherwise specified tumors

PAS = The periodic acid-Schiff

PNET = Primitive neuroectodermal tumors of uterus

SD = Standard deviation

SHBG = Sex hormone binding globulin

TNM = Tumor, Node and Metastasis system

UPSC = Uterine papillary serous carcinoma

USMN = Uterine smooth muscle neoplasms

WHO = World Health Organization

Introduction

Introduction

Uterine cancer is the fourth most common malignancy in women, following breast cancer, lung and colorectal cancer. However, as it is usually detected in early stages, it is not a common cause of cancer deaths. (Schulten , et al.2004)

Endometrial carcinoma is the most common malignant tumor of the female genital system in developed countries. Where estrogen-dependent neoplasms account for 80-85% of cases and the non-estrogen dependant tumors makes up the remaining 10-15 %.(Hinkula, et al.2002).

Risk factors of uterine cancer includes obesity, nulliparity, late menopause occurring in women older than 52 years, exogenous unopposed estrogen, tamoxifen, diabetes, hypertension, high dietary fat consumption, radiation therapy. (Clement, et al.2002).

The cardinal symptom of endometrial carcinoma is abnormal uterine bleeding, which occurs in 90 percent of cases. Even one drop of blood in a postmenopausal woman not on hormone replacement constitutes a symptom and is an indication for diagnostic testing to exclude endometrial cancer. Overall, 5 to 20 percent of postmenopausal women with uterine bleeding will have endometrial cancer. (Akslen 2005)

Endometrioid adenocarcinoma is the most common endometrial malignancy, accounting for more than 75% of all endometrial cancers, and is relatively rare in pre-menopausal women. (Alkushi, et al. 2003)

The typical early clinical presentation, most cases of endometrial cancer are endometrioid adenocarcinoma that is well-differentiated and stage I disease. Overall 5-year survival rates for all grades and histological subtypes are 87%, 72%, 51%, and 9% for stage I, II, III, and IV disease, respectively. The nuclear grade is an important determinant of prognosis. For stage I disease, 5-year survival rates for Grade I, Grade II, and Grade III endometrial carcinoma is 92%, 87%, and 74%, respectively. (Ben-Shachar, et al. 2005)

Tumor type, grade of differentiation, depth of myometrial invasion, lymphvascular space invasion (LVSI), coexistence of endometrial hyperplasia, stage, and lymph node metastasis are used to predict the clinical outcome for patients with endometrial carcinoma. (Ferrandina, et al.2002).

Uterine sarcomas have a poor prognosis, and survival is much worse than that reported for endometrial adenocarcinoma, with an overall survival of less than 50% at 2 years, even when presenting at an early stage. (Rovirosa, et al.2002).