شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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بالرسالة صفحات لم ترد بالاصل

TRANSVAGINAL COLOR DOPPLER ULTRASOUND IN EVALUATION OF OVARIAN MASSES

618, 11

Thesis

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By

Mohamed Farag Mohamed
M.B., B.Ch. and MSc.
Obstetrics & Gynecology

Supervisors

PROF. DR. SOHIR MOHAMED AFIA
Professor of Gynecology and Obstetrics
Benha Faculty of Medicine
Zagazig University

PROF. DR. MOHAMED EL-MOSTAFA ABD EL-KAREM
Professor of Gynecology and Obstetrics
Benha Faculty of Medicine
Zagazig University

DR. HODA ABD EL-KADER MANSOUR
Lecturer of Gynecology and Obstetrics
Benha Faculty of Medicine
Zagazig University

BENHA FACULTY OF MEDICINE
ZAGAZIG UNIVERSITY

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بسم الله الرحمن الرحيم

﴿قالوا سبحانك لا علم لنا إلا ما علمتنا

إنك أنت العليم الحكيم﴾

صدق الله العظيم

" سورة البقـرة آية٣٢ "

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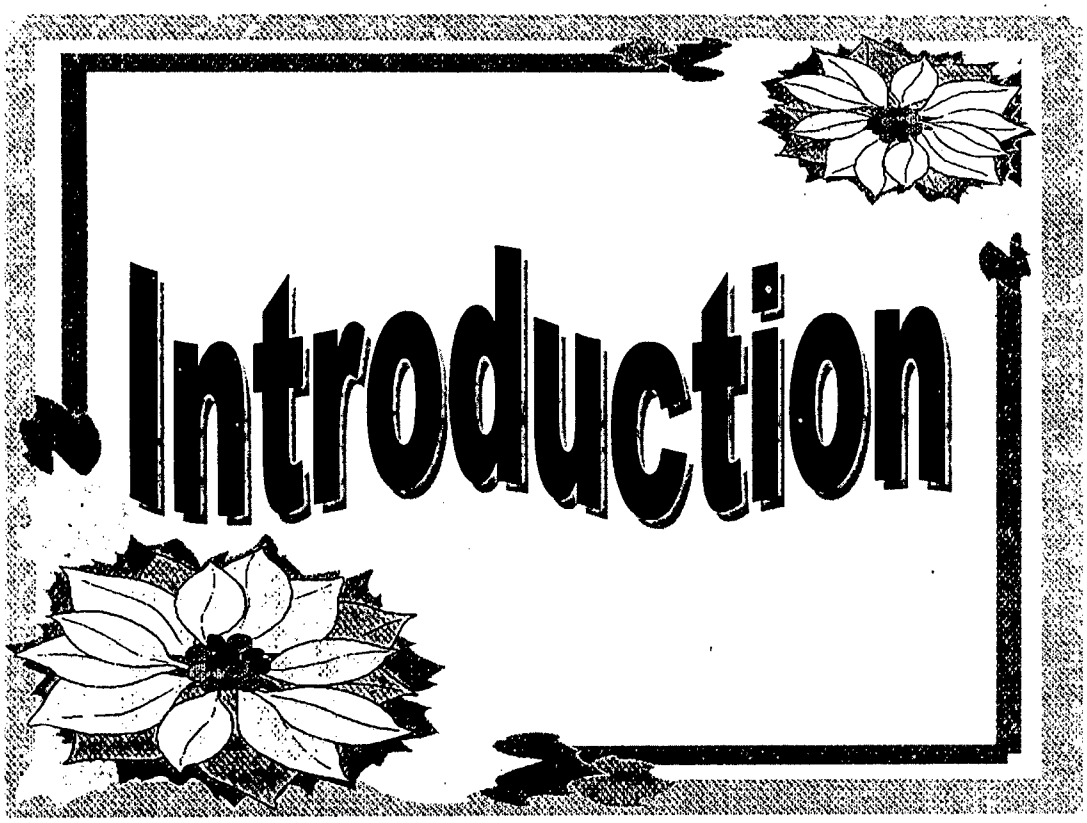
CONTENTS

List of Figures

List of Tables


Introduction

INTRODUCTION

Ovarian carcinoma is the leading cause of death among gynecologic malignancies and the fourth most common cause of death in women with malignant disease ***(Loyer et al., 1999).***

Unfortunately, until now more than 70% of ovarian malignancies are stage 3 or more when first diagnosed. Consequently, the overall 5-year survival rate is poor. This medical problem calls for an effective, preferably non invasive and practical method for early diagnosis of ovarian malignancy in its early stage when the 5-year survival rate is over 80% ***(Sny and Dubinsky, 1999).***

Gynecological examination in combination with ultrasound findings are the basic and widely available procedures of evaluating adenxal masses ***(Alcazar et al., 2003)***. High frequency transvaginal sonography improves the ability to detect malignant ovarian tumors over that of the transabdominal route. The vaginal approach produces greater image resolution than the abdominal approach ***(Weiner et al., 1992; Tepper et al., 1996)***, thus allowing detailed morphologic assessment of ovarian masses.

An alternative approach has been introduced by serum Ca 125 measurements ***(Marret et al., 2002)***. The positive and negative predictive values of this marker for ovarian malignancy are generally low ***(Kupesic et al., 2002)***, so it is mainly used in the postoperative follow-up of patients undergoing chemotherapy.

Early detection of malignant tumours of the ovary is a major challenge to gynecologists because small tumours can escape bimanual examination. Transvaginal ultrasonography has been used as a reliable method to visualize ovarian masses. To distinguish benign from malignant ovarian masses, morphologic criteria such as irregularities of the inner wall structure and septa and mixed or high echogenicity have been suggestive as predictive signs of ovarian cancer. The overlap in ultrasonographic features of benign and malignant ovarian masses, however, has led to further research on complementary techniques ***(Alcazar and Jurado, 1999).***

It has been known for over 25 years that angiogenesis is crucial for sustaining tumor growth, as it allows oxygenation and nutrient perfusion of the tumor as well as removal of waste products. Angiogensis is a common phenomenon in malignant ovarian neoplasms ***(Kurjak et al., 2000).***

Transvaginal Doppler waveform analysis provides high sensitivity and specificty and is superior to the other methods for preoperative evaluation of ovarian masses. It can accurately discriminate between malignant and non malignant ovarian tumors using a simple measurement of RI in the newly formed intratumoral blood vessels. Moreover, because early development of neovascularity may precede tumor growth, screening for ovarian malignancy with transvaginal Doppler waveform analysis may detect early ovarian neoplasms before sonography. In the last several years color-coded Doppler flow imaging became feasible and **several recent studies have described the value of color flow Doppler** imaging in conjunction with transvaginal ultrsonography in the preoperative evaluation of ovarian masses ***(Guerriero et al., 2002).***

A pelvic mass can represent a number of different benign and malignant conditions. The traditional strategy for the establishment of a final diagnosis has been to perform an exploratory laparotomy, but insufficient primary surgery is a poor prognostic factor for ovarian cancer. Accurate preoperative prediction of malignancy is important for patient counseling, as well as for selecting the optimal operative approach (laparoscopy versus laparotomy), incision type, and operative procedure ***(Lynda et al., 1997).***