



بسم الله الرحمن الرحيم

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بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى

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**COMPARATIVE STUDY BETWEEN ABDOMINAL
AND VAGINAL ULTRASONOGRAPHY IN THE
MANAGEMENT OF FIRST TRIMESTER
HEAMORRHAGE**

Thesis

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By

KHALID MOHAMED SALAMA
(M.B., B.Ch.)

Under Supervision Of

PROF. DR. AHMED SAID

Prof. of Obstetrics and Gynaecology
Benha Faculty of Medicine
Zagazig University

PROF. DR. AYMAN ASSAF

Prof. of Obstetrics and Gynaecology
Benha Faculty of Medicine
Zagazig University

PROF. DR. AHMED MANSOUR

Assist. Prof. of Obstetrics and Gynaecology
Benha Faculty of Medicine
Zagazig University

**BENHA FACULTY OF MEDICINE
ZAGAZIG UNIVERSITY**

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LIST OF TABLES

Table No.	Title	Page No.
a	Clinical classification of GTD.	37
1	Clinical presentation in study cases.	62
2	Clinical diagnosis in study cases.	62
3	Sonographic diagnosis in study cases by TAS & T.V.S.	63
4	Comparative study of the sonographic findings in 25 cases with abortion T.A.S. versus T.V.S.	67
5	Comparative study of the sonographic findings in 9 cases of ectopic pregnancy by T.A.S. versus T.V.S.	69
6	Comparative study of the sonographic findings in 7 cases of G.T.D.: T.A.S. versus T.V.S.	70
7	Means of gestational sac diameter $\pm$ S.D.: T.A.S. versus T.V.S. (23 patients).	71
8	Calculated means of C.R.L., T.A.S. versus T.V.S. (26 patients).	71
9	Sensitivity, specificity, positive predictive and negative predictive value of T.A.S. versus T.V.S. (No. of cases 50).	72
10	Frequency distribution of the clinical cases according to pregnancy outcome.	72
11	Evaluation of T.A.S. versus T.V.S. as compared to final diagnosis.	73

LIST OF FIGURES

Fig. No.	Title	Page No.
1	T.V.S revealed a gestational sac with diameter 30 ml corresponding to 9 weeks gestation together with the separation of amniotic membrane from chorion (normal ultrasound finding).	74
2	T.V.S. shows gestational sac with a diameter about 11.8 ml corresponding to gestational age 5.7 weeks, CRL about 10.5 ml corresponding to 6 weeks together with yolk sac (normal ultrasound finding).	75
3	T.V.S. shows empty uterus with extrauterine gestational sac, and free fluid in pelvis (disturbed ectopic pregnancy).	76
4	T.A.S. shows hypoechoic intrauterine vacuoles with absence of parts of foetus or placenta (vesicular mole).	77
5	T.V.S. shows the characteristic hypo-ecchoic intra-uterine vacuoles with absence of foetal parts or placenta (vesicular mole).	78

LIST OF ABBREVIATIONS

ABO-grouping	Blood-grouping.
β -hCG	β -subunit of human chorionic gonadotrophin.
C.R.L.	Crown-rump length.
CA125	Cancer antigen 125
D & C	Dilatation and curettage.
DES	Diethyl stilbesterol.
D.S.S.	Double sac sign.
D.U.B.	Dysfunctional Uterine Bleeding.
E1	Estrogen.
E2	Estradiol.
E & C	Evacuation and curettage.
G.A.	Gestational age.
gm	Grams
G.S.	Gestational sac.
G.S.D.	Gestational sac diameter.
G.S.V.	Gestational sac volume
G.T.Ds.	Gestational Trophoblastic Diseases.
H.L.A.	Human Leucocyte Antigen.
H.M.	Hydatidiform mole.
hPL	Human placental lactogen.
IUCD	Intra-uterine contraceptive device.
IUP	Intra-uterine pregnancy.
I.V.	Intra-venous.
IVF-ET	In-vitro Fertilization & Embryo Transfer.
Kg	Kilogram.
L	Liter.
LDH	Lactic acid dehydrogenase.
LMP	Last menstrual period.
mg	Milligram.
MHz	Mega-Hertz (1,000,000 cycles/second).
mIU	Milli-International Unit.
ml	Milli-liter.
mm	Milli-meter.
M.R.I.	Magnetic Resonance Image.
PG-E2	Prostaglandin-E2.
PG-F2	Prostaglandin-F2 alpha.
P.G.S.	Pseudo-gestational sac.
P.I.D.	Pelvic Inflammatory Disease.
P.I.H.	Pregnancy Induced Hypertension.
Rh	Rhesus factor.

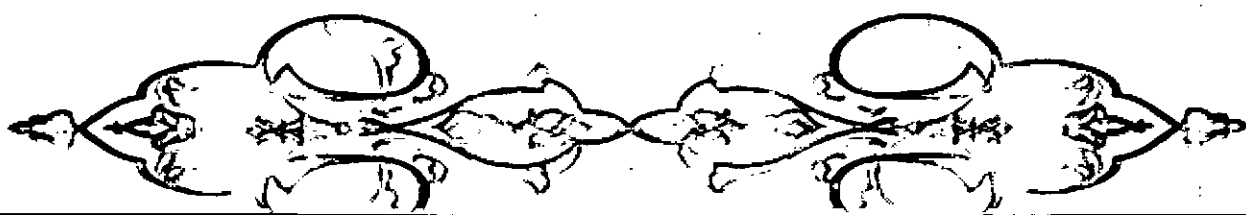
S.D.	Standard deviation.
TAS	Transabdominal sonography.
TVS	Transvaginal sonography.
U	Unit..
V.M.	Vesicular mole.
+ve	Positive.
-ve	Negative.
>	More than
<	Less than
%	Percent.
X	Arithmetic mean.

CONTENTS

	Page
❖ <i>INTRODUCTION</i>	1
❖ <i>AIM OF THE WORK</i>	4
❖ <i>REVIEW OF LITERATURE</i>	
- Abortion	5
- Ectopic pregnancy	21
- Gestational trophoblastic disease	35
- Other causes of 1 st trimester hemorrhage	52
❖ <i>PATIENTS AND METHODS</i>	56
❖ <i>RESULTS</i>	62
❖ <i>DISCUSSION</i>	79
❖ <i>SUMMARY</i>	86
❖ <i>CONCLUSION</i>	89
❖ <i>REFERENCES</i>	90-105
❖ <i>ARABIC SUMMARY</i>	



INTRODUCTION



INTRODUCTION

The field of diagnostic ultrasound has expanded in application so rapidly over the past few years. By the ultrasound, it is easy to locate different organs and tissues and to measure the interfaces between them in cross section in the different structures (*Soliman, 1988*).

There have been both an improvement in the performance and expansion in the types of instrumentation available. The field that developed most are, real time scanning, digital scan conservation, Doppler technique and endosonography (*Khalil, 1988*). This implies that the clinician should be aware about ultrasound scope and limitation and understanding its basic principles.

Ultrasound is useful for diagnosis in obstetrics and gynecology because it provides a way for visualizing the internal female genital tract anatomy and the fetus in-utero, this is accomplished by sending pulses of ultrasound waves into the patient then receiving these reflected, scattered and processing them to produce a displayed image of the internal cross sectional anatomy (*Abdel Raouf, 1988*).

Abdominal ultrasound has been used as an effective method in diagnosis and research tool in second and third trimester, but in the first trimester, it is relatively limited. The introduction of high frequency transvaginal probes with their higher resolution of images open new possibility to study early gestation (*Zalod and Kurjak, 1990*).

The ultrasound is the only imaging modality that can accurately evaluate the normal intrauterine pregnancy and its early complication during their critical period of life (*Boules, 1990*).

The presence of cardiac pulsation early in the first trimester has an evidence of viable pregnancy (*Laboda et al., 1989*). Transvaginal ultrasound is a simple and reliable clinical tool to detect first trimester pregnancy abnormalities (*Jarjour and Kletzky, 1991*).

The first trimester haemorrhage may result from abortion, ectopic pregnancy and, trophoblastic disease (*Dodson, 1980*).

It was easier to screen a patient transabdominally with a full bladder. If the abdominal scan is non-diagnostic, it is necessary to have an endo-vaginal scan (*Goldstein et al., 1994*).

Approximately 25 percent of women presented with vaginal bleeding during their early pregnancy were diagnosed as threatened abortion, half of them will be terminated in a spontaneous abortion (*Nyberg et al., 1986*).

The women who bleed in early pregnancy are at increased risk of sub-optimal pregnancy outcome (*Cashner et al., 1987*).

Spontaneous abortion represents 10-15% of all pregnancies which may be 20% in the later years of reproductive life. If we add discarded zygote before implantation which occur so early to be unrecognized by the woman, the incidence will be very high (*Dickey et al., 1992*).

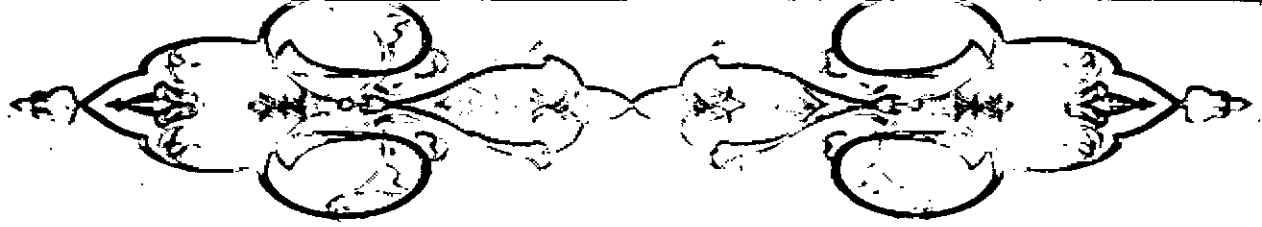
The value of ultrasound in the threatened abortion is to predict which pregnancy will continue successfully to term (*Woletz and Goldstien, 1991*).

Ectopic pregnancy is a major problem, it is increased recently due to increased incidence of pelvic inflammatory disease secondary to the use of intrauterine contraceptive device. Non-invasive diagnostic method using transvaginal sonography and serum HCG monitoring are reliable tools in the diagnosis of ectopic pregnancy (EP). The incidence of ectopic pregnancy increased after invitro fertilization and embryo transfer (*Mol et al., 1997*).

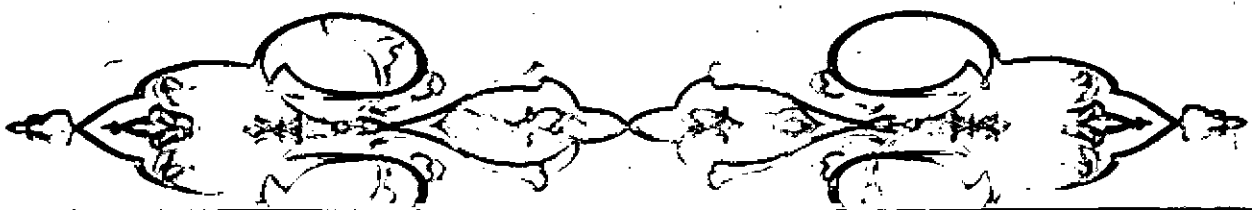
The trophoblastic disease comprises 3 conditions; hydatiform mole, invasive mole and choriocarcinoma which is characterized by active proliferation of trophoblastic tissues (*Begnet, 1990*).

The diagnosis of hydatiform mole during pregnancy, before passage of the pathognomonic vesicles is so difficult. Ultrasound provides the rapid accurate diagnosis of hydatiform molar pregnancy. It plays a crucial role in evaluating its progression to invasive mole or chorio- carcinoma (*De Lang et al., 1991*).

The transvaginal ultrasound is used as a first step in determining further treatment options. Invasive treatment methods can be avoided in patients presenting with spontaneous complete abortion with empty uterine cavity (*Cetin & Cetin, 1998*).



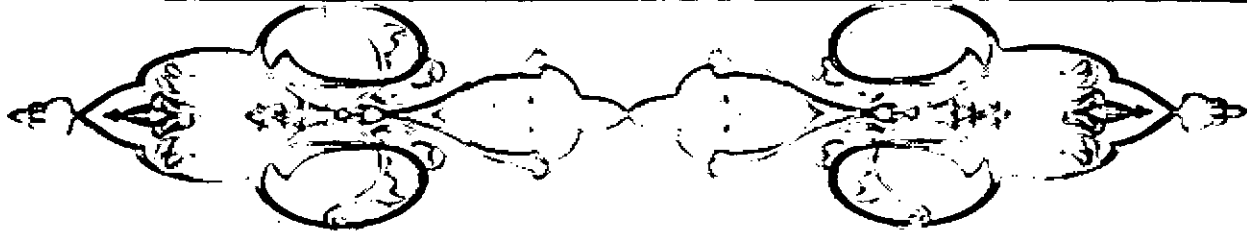
AIM OF THE WORK



AIM OF THE WORK

The aim of the present study is:

- ◆ To evaluate the ultrasound as a diagnostic procedure in the management of bleeding in the first trimester in comparison to final diagnosis.
- ◆ To compare ultrasound findings obtained by transabdominal and transvaginal routes in searching for the proper diagnosis of various causes of first trimester bleeding.



REVIEW OF LITERATURE

