ORAL VERSUS VAGINAL MISOPROSTOL IN MANAGEMENT OF BLIGHTED OVUM

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بسم الله الرحمن الرحيم

"قالوا سبحانك لا علم لنا إلا ما

علمتنا إنك أنت العليم الحكيم"

صدق الله العظيم

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Abstract

Abortion is the termination of pregnancy by removal or expulsion from the uterus of a fetus or embryo prior to viability current recommendation is that in early pregnancy loss the term abortion should be avoided and more sensitive terminology substituted.

Spontaneous abortion should be replaced by miscarriage blighted ovum, missed abortion or an embryonic should be replaced by early embryonic or fetal demis. In complete abortion should replaced by incomplete miscarriage. Recurrent or habitual abortion should be replaced by recurrent miscarriage.

This is a prospective clinical study that was conducted in order to evaluate the efficacy, side effects, tolerability of a dose 600 microg. Vaginal misoprostol versus 600 microg oral misoprostol in management of bilighted ovum.

Key Words:

Abortion, Clinical Types of Abortion, Management of Abortion, Misoprostol.

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ACA	**:**	**Anticardiolipin antibody**
ACOG	**:**	**American college of obstetrics and gynecology**
ANA	**:**	**Antinuclear antibody**
aPL	**:**	**Antiphospholipid antibody**
BMA	**:**	**British Medical Association**
BMI	**:**	**Body mass index**
BPD	**:**	**Biparietal diameter**
CI	**:**	**Confidence interval**
CRL	**:**	**Crown rump length**
D and C	**:**	**Dilatation and curettage**
DBP	**:**	**Diastolic blood pressure**
DIC	**:**	**Disseminated intravascular coagulopathy**
DM	**:**	**Diabetes mellitus**
FDA	**:**	**Food and drug administration**
FL	**:**	**Femur length**
Hb	**:**	**Hemoglobin**
hCG	**:**	**Human chorionic gonadotropin**
HIV	**:**	**Human immunodeficiency virus**
HLA	**:**	**Human leucocytic antigen**
IAI	**:**	**Induction abortion interval**
ICI	**:**	**Induction contraction interval**
IDI	**:**	**Induction dilatation interval**
IP3	**:**	**Inositol triphosphate**
IUFD	**:**	**Intrauterine fetal death**
IUGR	**:**	**Intrauterine growth retardation**

IVF	**:**	**In-vitro fertilization**
LAC	**:**	**Lupus anticoagulant**
LH	**:**	**Luteinizing hormone**
LMP	**:**	**Last menstrual period**
MVA	**:**	**Manual vacuum aspiration**
NS	**:**	**Non significant**
NSAID	**:**	**Non steroidal anti inflammatory drugs**
OR	**:**	**Odds ratio**
P/V	**:**	**Per vagina**
PCO	**:**	**Polycystic ovarian syndrome**
PGE1	**:**	**Prostaglandin E1**
S	**:**	**Significant**
SBP	**:**	**Systolic blood pressure**
TLX	**:**	**Trophoblast/lymphocyte cross reactive**
TVS	**:**	**Transvaginal sonography**
β hCG	**:**	**Beta subunit human chorionic gonadotropi**

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INTRODUCTION

Miscarriage or spontaneous abortion is the spontaneous end of a pregnancy at a stage where the embryo or fetus is incapable of surviving, generally defined in humans at prior to 20 weeks of gestation. Miscarriage is the most common complication of early pregnancy **(Petrozza et al., 2007)**

Very early miscarriages - those which occur before the sixth week LMP (since the woman's Last Menstrual Period) are medically termed early pregnancy loss **(Wang et al., 2004)** or chemical pregnancy. 'Miscarriages that occur after the sixth week LMP arc medically termed clinical spontaneous abortion **(Wang et al., 2004).** Early pregnancy failure-also known as blighted ovum, early fetal death, or missed abortion-complicates 15-20% of all pregnancies **(Kovavisarach et al., 2005).**

A blighted ovum, is a fertilized egg that implants but does not develop. The gestational sac continues to grow but the baby does not grow within the sac. If the case is a true blighted ovum, the yolk and fetal pole will not be present. Approximate estimates indicate that 15% of all clinically recognized pregnancies end in miscarriage **(Luise, et al., 2002).**

Estimates vary little and approximate blighted ovums account for 45 to 55% of all miscarriages **(American Pregnancy Association).**

There is just so much we do not know about the blighted ovum. Although the blighted ovum is mentioned frequently in medical literature, not many research papers dedicated to understanding the blighted ovum can be found. General concensus seems to indicate that a blighted ovum is due to a chromosomal abnormality possibly related to trisomies 16 and 22 **(Minelli, et al., 1993).**

Some research seems to indicate that a blighted ovum may be more common in older mothers and is usually a problem with the egg rather the sperm. Generally, a blighted ovum is considered a one-time event and fluke of nature. However, miscarriage is a risk in any pregnancy. Just because you well had one blighted ovum does not mean you will not miscarry again, but your risk is not heightened because of the blighted ovum.

Medical management has recently been explored as an alternative for management of miscarriage. Several studies have examined the efficacy of prostaglandins with or without mifepristone. Due to differences in selection criteria, choice and different criteria for diagnosis of complete miscarriage, it would be desirable to develop a regimen without mifepristone since it is expensive and is not available in many countries **(El-Refaey et al., 1995 and Tang et al., 2002)**

Misoprostol is a prostaglandin El analogue that has a lower cost, a longer shelf-life at room temperature, and fewer side effects than the prostaglandin E2 analogues **(Templeton, 1998).**

Misoprostol is the prostaglandin of choice as it also has various routes of administration including oral, vaginal and sublingual. Misoprostol have been studied for termination of pregnancy in the first trimester **(El-Refaey et al., 1995 and Tang et al., 2002a,b).**

Clinical studies have shown that vaginal is superior to oral misoprostol in termination of pregnancy in the first trimester **(El-Refaey et al., 1995)**

Other methods of management are: surgical evacuation of the uterus which used to be the standard management but is associated with side effects such as infection, perforation of uterus or asherman's syndrome **(Oi Shan Tang et al., 2003)**

Expectant management of miscarriage is an attractive option. It avoids iatrogenic problems and cost effective, but complete abortion rate is variable depending on the duration of observation **(Nielsen and Hahlin, 1995 and Jurkovic et al., 1998)**

AIM OF THE WORK

This study aims at comparing the success rate, tolerability and side effects between oral and vaginal 600 microgram misoprostol in the management of blighted ovum.

ABORTION

Nearly 20% of all confirmed pregnancies end in spontaneous abortion **(Laferala, 1986).**

About one in four women will have an early pregnancy failure during their life time, with the most common cause being spontaneous abortion, an embryonic gestation and embryonic of fetal death **(Aldermen et al., 1992).**

Current recommendation is that in early pregnancy loss the term abortion should be avoided and more sensitive terminology substituted-spontaneous abortion should be replaced by miscarriage. Blighted ovum, missed abortion or anembrynonic should be replaced by early embryonic or fetal demise. Incomplete abortion should replaced by incomplete miscarriage. Recurrent or habitual abortion should be replaced by recurrent miscarriage **(Slemons et al., 2004).**

Terminology

Abortion is the termination of pregnancy by the removal or expulsion from the uterus of a fetus or embryopnor to viability **(Grimes et al., 2006).**

Abortion is defined as the expulsion or extraction of fetus (embryo) weighing less than 500mg equivalent to the approximately 20-22 weeks gestation **(World Health Organization, 1977).**

The term abortion most commonly refcres to the induced abortion of a human pregnancy.

Abortion when induced in developed world in accordance with local law, is among the safest procedures in medicine **(Grimes et al., 2006).**

However, unsafe abortions result in approximately 70 thousand maternal deaths and 5 million disabilities per year globally **(Shah and Ahman, 2009).**

This has led groups to reviewing the law and in 1985 the department of health and social security in combination with the colleges of obstetricians, General Practitioners and Midwives, the British Pediatric Association and the British Medical Association Published a report on fetal viability in clinical practice which may be summarized as follows;

1. The lower limit of fetal viability should be changed to 24 weeks of gestation.
2. All fetuses born alive or dead after 22 weeks gestation or weighting 500gm or more should be recorded.
3. If a decision is made to terminate.

Abortion in historical prospective:

Historically, a number of herbs reputed to possess aborlifacient properties have been used in folk medicine: tansy,