



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكرو فيلم

# بسم الله الرحمن الرحيم



**HANAA ALY**



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التوثيق الإلكتروني والميكروفيلم



# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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التوثيق الإلكتروني والميكروفيلم

# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**HANAA ALY**



# **Efficacy of Ulipristal Acetate in Induction of Second Trimestric Missed Abortion: Randomized Controlled Trial.**

Thesis

*Submitted for Partial Fulfillment of  
M.D. Degree in Obstetrics and Gynecology*

By

**Mohamed Sameh Saad Elsewefy**  
*M.B.BCH. (2013); M.Sc. (2017)*

Under Supervision of

**Dr. Ayman Abdelrazek Abulnour**

*Professor of Obstetrics and Gynaecology  
Faculty of Medicine, Ain Shams University*

**Dr. Ahmed Mohamed El-Kotb**

*Assistant Professor of Obstetrics and Gynaecology  
Faculty of Medicine, Ain Shams University*

**Dr. Sarah Safwat Moawad**

*Lecturer of Obstetrics and Gynaecology  
Faculty of Medicine, Ain Shams University*

Faculty of Medicine - Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# قَالَ

لَسْبَّانِكَ لَا أَعْلَمُ لَنَا  
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

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**Mohamed Sameh Saad Elsewefy**

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# List of Abbreviations

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Abb.	Full term
<i>BMI</i> .....	<i>Body Mass Index</i>
<i>CMV</i> .....	<i>Syphilis and Cytomegalo virus</i>
<i>CRL</i> .....	<i>Crown-rump length</i>
<i>CVS</i> .....	<i>Chorionic villus sampling</i>
<i>D&amp;E</i> .....	<i>Dilation and evacuation</i>
<i>FDA</i> .....	<i>Food and Drug Administration</i>
<i>NSAIDs</i> .....	<i>Nonsteroidal anti-inflammatory drugs</i>
<i>PGE1</i> .....	<i>Prostaglandin E1</i>
<i>PROMs</i> .....	<i>Premature Rupture of membranes</i>
<i>PT</i> .....	<i>Prothrombin time</i>
<i>SPSS</i> .....	<i>Statistical Package for Social Sciences</i>
<i>UPA</i> .....	<i>Ulipristal Acetate</i>

# INTRODUCTION

Miscarriage is common, affecting one in five pregnancies (*Chu et al., 2020*). Miscarriage can cause physical harm, such as excessive bleeding and infection, and substantial psychological harm, including anxiety, depression, and post-traumatic stress disorder (*Murphy et al., 2020*).

There are two main types of miscarriage that require medical intervention, missed miscarriage and incomplete miscarriage. A missed miscarriage, also known as a delayed or silent miscarriage, is diagnosed when a non-viable pregnancy is identified on ultrasound scan during the first 14 weeks of gestation. Often, women who have missed miscarriage are asymptomatic or have small amounts of vaginal bleeding or pain before the diagnosis is made. All pregnancy tissue is retained in the uterus in a missed miscarriage. By contrast, an incomplete miscarriage is diagnosed when pregnancy tissue has been partly expelled by the uterus (*Chu et al., 2020*).

Misoprostol, a prostaglandin analogue, is commonly used for the medical management of miscarriage to induce myometrial contractions to aid the expulsion of pregnancy tissue (*WHO, 2018*). However, misoprostol is not always effective, and 15–40% of women require an additional dose of misoprostol, thus prolonging the duration of treatment (*Chu et al., 2020*). Failure of medical management can result in more surgical procedures being done, which can be particularly

undesirable to women who have chosen to have medical management (*Pud et al., 2005*).

To augment the effect of misoprostol, a steroidal anti-progesterone like mifepristone is sometimes used in combination. Mifepristone is a competitive progesterone receptor antagonist that primes the myometrium before prostaglandin exposure (*Chu et al., 2020*).

Due to its anti-progestin activity, Ulipristal is highly effective for use in emergency contraception. It's primary mechanism of action is delaying of ovulation, but endometrial effects that may affect implantation may also contribute to efficacy (*Lane et al., 2013*).

## **AIM OF THE WORK**

The aim of the study is to assess the effectiveness and safety of Ulipristal Acetate in the management of 2<sup>nd</sup> trimestric missed abortion along with misoprostol in pregnant women versus the use of misoprostol only with placebo as regards the time needed for abortion (whether complete or incomplete abortion).

## **SECOND TRIMESTER ABORTION**

Fetal death occurring between 13 and 20 weeks is defined as early second trimester loss. It accounts for about 2-3% of pregnancies. However, it holds a higher level of complication when compared to 1<sup>st</sup> trimester loss, which usually accounts for 20% of pregnancies (*McPherson, 2016*).

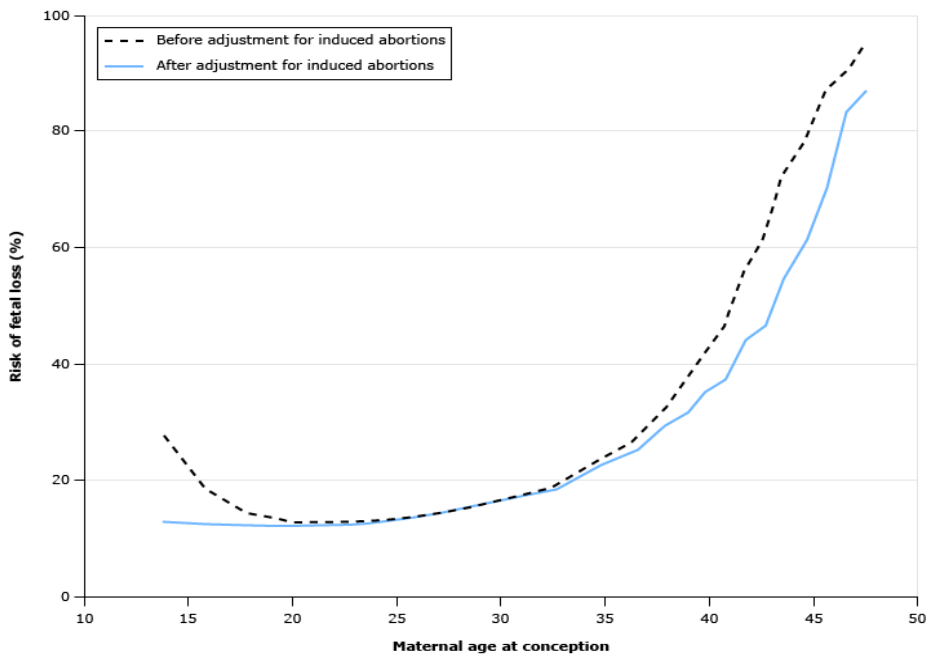
The underlying causes or pathology are usually not identified, as the etiology is frequently due to more than one cause. In addition, an obstetric overlap occurs with complication such as preterm delivery or premature rupture of the membranes (*McNamee, 2013*).

Loss of pregnancy, miscarriage or spontaneous abortion is described as a non-viable pregnancy up to 20 weeks gestation. First trimester pregnancy loss, known as; early pregnancy loss is the most frequent type. It usually presents with no specific symptoms of; uterine cramping, bleeding per vagina or mild spotting. All these symptoms commonly happen with molar pregnancies, ectopic pregnancies or with pregnancy loss, which can be confusing and thus require high level of expertise to differentiate between them (*ACOG, 2018*).

**Risk factors**

**1. Increasing age-**

It has been noted that extremes of age have shown an increased risk of pregnancy loss, with an age above 35 to be an important risk factor due to its correlation with the incidence of chromosomal abnormalities. In a prospective cohort study, it was noted that the lowest risk of miscarriage was in women aging from 25 – 29 years with an incidence of 10%, this significantly amplified to 57% in the age group >45 years (*Nybo Andersen, 2000*).



**Fig. 1:** Risk of fetal loss from spontaneous abortion, ectopic pregnancy, and stillbirth according to maternal age at conception (*Nybo Andersen, 2000*).