

Misoprostol versus Dilatation and Curettage in Management of Missed Abortion

Thesis

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إِنَّ اللَّهَ عِنْدَهُ عِلْمُ السَّاعَةِ وَيُنَزِّلُ
الْغَيْثَ وَيَعْلَمُ مَا فِي الْأَرْحَامِ
وَمَا نَرَىٰ نُفُوسُ مَاذَا نَكْسِبُ
عَمَّا نَرَىٰ نُفُوسُ نَفْسٌ بِأَيِّ أَرَضٍ
نُفُوسُ إِنَّ اللَّهَ عَلِيمٌ خَبِيرٌ



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List of Abbreviations

ACOG	American College of obstetricians and Gynecologists
C R L	Crown rump length
D&C	Dilatation & Curettage
G.A	Gestational Age
G.S	Gestational Sac
Hz	Hertz
LMP	Last Menstrual Period
M V A	Manual Vacuum Aspiration
NSAIDs	Non Steroidal Anti-Inflammatory Drugs
P V	Per Vagina
P- value	Probability value
RCOG	Royal College of Obstetrician and Gynecologists
RPOC	Retained Products Of Conception
US	Ultrasound

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Introduction

Early pregnancy failure is a major public health problem throughout the world. Although approximately 15% of all pregnancies end in spontaneous miscarriage, there are also an estimated 46 million induced abortions annually. Many of these are performed illegally in unsafe situations resulting in approximately 78,000 deaths annually worldwide, with the majority of these deaths occurring as a result of septicemia and hemorrhage. In addition, many more women suffer long-term morbidity from pelvic infection, uterine perforation and anemia (*Weeks a et al., 2005*).

Abortion is the termination of pregnancy, either spontaneously or intentionally, before the fetus develops sufficiently to survive. By convention, abortion is usually defined as pregnancy termination prior to 20 weeks gestation or less than 500gm birth weight. Definitions vary, however, according to state laws for reporting abortions, fetal deaths and neonatal deaths (*Cunningham et al., 2005*).

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 pregnancy should be replaced by incomplete miscarriage. Recurrent or habitual miscarriage should be replaced by recurrent miscarriage (*Slemons et al., 2004*).

Aim of the Work

The aim of this thesis to compare the safety and effectiveness of misoprostol versus dilatation & curettage in management of missed abortion.

Spontaneous Abortion

Spontaneous abortion refers to pregnancy loss at less than 20 weeks' gestation in the absence of elective medical or surgical measures to terminate the pregnancy (*Griebel et al., 2005*).

Incidence of abortion:

Spontaneous abortion is the most common complication of pregnancy. It is estimated that around 40 % of early pregnancies result in miscarriage. A large majority of these are lost before the menstrual period is missed. More than 80% of abortions occur in the first 12 weeks of pregnancy, and the rate decreases thereafter (*Eskild et al., 2009*).

Miscarriage is the most common complication of pregnancy occurring in 10 - 20% of clinically recognized pregnancies (*Bagratee and Khullar, 2004*).

It appears that the real incidence of spontaneous abortion is much higher than the 10-20% usually mentioned (*Apuzzio et al., 2006*).

Pathology of Abortion:

Hemorrhage into the decidua basalis and necrotic changes in the tissues adjacent to the bleeding usually accompany abortion. The ovum becomes detached in a part or whole and, presumably acting as a foreign body in the uterus, stimulates uterine contraction that result in expulsion (*Cunningham et al., 2005*).

The exact mechanism resulting in the uterine expulsion of the early pregnancy is remains unknown (*Buckett and Regan, 2003*).

Before the 12th week, the pregnancy sac tends to be extruded from the uterus in one mass. After that time, the process more often resembles labor in that the membranes rupture at some stage during dilatation of cervix then the fetus and placenta are born separately. In either case, the process is not likely to be smooth as it is in labor at term, because the uterus is not properly sensitized and its muscular action is less efficient. Some part of the chorion is therefore often retained and excessive hemorrhage is common (*Cunningham et al., 2001*).

Etiology of abortion:

The exact causes of most spontaneous abortions are considered unknown. The causes of miscarriage can be fetal (or genetic), maternal, paternal and combined factors (*Apuzzio et al., 2006*).

I- Fetal factors:

Fetal wastage in first trimester has many causes, but genetic factors are the most common. The earlier the pregnancy loss occurs, the likelihood of genetic causation (*Simpson JI and Jauniaux E, 2006*).

Chromosomal abnormalities are a direct cause of spontaneous abortion. One meta-analysis found that a chromosomal abnormality occurs in 49 percent of spontaneous