

# Dydrogesterone in threatened abortion: Pregnancy outcome

M.H. Omar\*, M.K. Mashita, P.S. Lim, M.A. Jamil

Department of Obstetrics and Gynaecology, University Kebangsaan, Jalan Yaacob Latif, Bandar Tun Razak,  
56000 Cheras, Kuala Lumpur, Malaysia

## Abstract

**Objective:** To determine whether therapy with dydrogesterone in threatened abortion during the first trimester of pregnancy will improve pregnancy outcome.

**Design:** Prospective open study.

**Subjects:** Pregnant women presenting to the obstetric and gynaecology clinic admitting center with vaginal bleeding before 13 weeks gestation were evaluated for entry into the study. Women were excluded if they had a history of recurrent miscarriage.

**Method:** Eligible subjects were randomized to receive either dydrogesterone 40 mg stat dose followed by 10 mg twice a day for one week or conservative therapy.

**Results:** One hundred and 54 women were recruited. There was no statistically significant differences between the two groups with regard to pre-treatment status. The continuing pregnancy success rate was significantly ( $p=0.037$ ) higher in women treated with dydrogesterone (95.9%) compared with women who received conservative treatment (86.3%). The odds ratio of the success rate between dydrogesterone treatment and non-treatment was 3.773 (95% confidence interval: 1.009–14.108).

**Conclusion:** Corpus luteal support with dydrogesterone has been shown to reduce the incidence of pregnancy loss in threatened abortion during the first trimester in women without a history of recurrent abortion.

© 2005 Elsevier Ltd. All rights reserved.

**Keywords:** Dydrogesterone; Threatened abortion; Pregnancy; Luteal support

## 1. Introduction

Threatened abortion is associated with bleeding and/or uterine cramping while the cervix is closed. This stage of abortion may progress to spontaneous incomplete or complete abortion. While this event may be considered a part of the quality control process in human reproduction, it is important to know the possible etiologies and when therapy might prevent pregnancy loss.

No one disputes the crucial role that progesterone plays in the maintenance of pregnancy [1]. Whether this is via the inhibition of oxytocin-induced myometrial activity [1,2] or through inhibition of prostaglandin excitation [3,4] is less clear. Studies have proven that progestogen treatment of miscarriage in early pregnancy is no more effective than placebo. Even so, progestogens have been prescribed for over 30 years

by clinicians world-wide in the belief that they reduce the risk of pregnancy failure, in particular first trimester miscarriage.

However, there is a lack of firm evidence from prospective controlled trials that any type of hormonal ‘deficiency’ is the cause of spontaneous abortion, so the value of giving progesterone [5] remains to be proven. In an attempt to derive an accurate assessment of the value of progestogens, a number of meta-analysis reviews have been undertaken. In 1989, Goldstein et al. [6] published a meta-analysis of randomized controlled trials of ‘progestational agents in pregnancy’, and concluded that progesterone and its analogues are ineffective in the maintenance of pregnancy. Keirse [7] conducted another more restricted meta-analysis involving the use of a single progestogenic agent, i.e. 17  $\alpha$ -hydroxyprogesterone acetate. He concluded that there is no evidence from controlled trials to justify the clinical use of any progestational agent to prevent miscarriage.

The difficulty in arriving at a consensus view concerning the usefulness of progestogens to prevent miscarriage does

\* Corresponding author. Fax: +603 91738946.

E-mail address: [mhashim@mail.hukm.ukm.my](mailto:mhashim@mail.hukm.ukm.my) (M.H. Omar).

not result from paucity of experimentation, but from several confounding variables, such as:

1. Progestogens encompass a wide range of synthetic progesterone-like hormones.
2. Different entry criteria, different doses and different routes of administration.
3. Most of the published (and unpublished) work was undertaken before it was possible to confirm a viable pregnancy using ultrasound and endocrinological assays. As a result, it is possible that progestogens do actually confer some protection from miscarriage, but it has not been revealed by these studies and reviews.
4. None of the studies demonstrated abnormal low-level serum progesterone before recruitment.
5. Most of the studies were too small to rule out or reveal a clinically important benefit.

In the current study, we used dydrogesterone (Duphas-ton), a retro progesterone with a very good oral bioavailability. It is structurally and pharmacologically very similar to natural progesterone, has selective progestational activity in humans, and is a non-luteolysis and non-thermogenic agent. The objective of the study was to determine whether dydrogesterone therapy for threatened abortion in the first trimester will improve pregnancy outcome and, specifically, to evaluate the effectiveness of dydrogesterone in allowing the pregnancy to continue successfully beyond 20 weeks gestation.

## 2. Methods

### 2.1. Design

This prospective open study was conducted between 1 March 2002 and 28 February 2004.

### 2.2. Patient sample

The registration records of all pregnant women who presented to the Obstetric and Gynecology Admitting Center (OGAC) with vaginal bleeding before 20 weeks gestation were evaluated. Patients were included if they had the following criteria:

1. Mild or moderate vaginal bleeding
2. No history of loss of conception material
3. Absence of systemic illness or fever
4. Normal size and shape gestation sac at 5 weeks
5. Presence of yolk sac at 5–6 weeks
6. Presence of fetal heart at 7 weeks
7. Gestational age less than 13 weeks

Patients were excluded from the study if they had:

1. Empty sac of more than 26 mm
2. History of recurrent miscarriage

The treatment group comprised patients who received dydrogesterone 40 mg stat, followed by 10 mg twice a day

until the bleeding stopped. They were also recommended bed rest and received folic acid. The control group comprised patients who were managed conservatively with bed rest and folic acid only. The patients were also advised to avoid sexual intercourse. The subjects were followed up until 20 weeks gestation.

Relevant data were collected from each case file regarding maternal age, race, estimated gestational age at entry, parity and medication history. Other information included the severity of symptoms and ultrasound findings. Treatment was considered successful if the women carried the pregnancy beyond 20 weeks gestation.

### 2.3. Statistical analyses

All data obtained was analyzed using the Chi-square test. The test was considered significant if the  $p$ -value was  $<0.05$ .

For the purpose of this study, the following definitions were used [8]:

1. *Miscarriage*: this was defined as spontaneous loss of an intrauterine pregnancy at  $\leq 20$  weeks gestation, calculated from the first day of the last menstrual period.
2. *Recurrent miscarriage*: this was defined as three or more consecutive miscarriages.
3. *Continuing pregnancy*: this was defined as an intrauterine pregnancy that had advanced beyond 20 weeks gestation.

## 3. Results

During the 2 year study period, a total of 678 women presented with bleeding within the first 20 weeks of gestation. Of these, 205 were diagnosed at the first visit as having threatened abortion at less than 13 weeks gestation and were without a history of recurrent abortion. Therefore, the actual prevalence of threatened abortion in the first trimester was only 30.2%. After reviewing the notes of these 205 cases, only 194 showed foetal viability with the correct size for the dates confirmed by ultrasound according to the inclusion criteria. However, 40 (20.6%) of these patients defaulted during follow-up. Thus, 154 patients (74 in the dydrogesterone group and 80 in the control group) were eligible for comparison.

The majority of the patients were young ( $<30$  years old) (Fig. 1); only 32 patients (20.7%) were  $\geq 35$  years old. The majority were in their first or second pregnancy (66.8%) and most presented around the eighth gestational week. There were no significant differences between the groups with respect to mean maternal age, gravida and gestational age (Table 1). Even though Malays formed the largest group, the numbers of patients from the three different races were equally distributed in both groups with no statistically significant differences between them ( $p=0.842$ ).

Download English Version:

<https://daneshyari.com/en/article/9892009>

Download Persian Version:

<https://daneshyari.com/article/9892009>

[Daneshyari.com](https://daneshyari.com)