INTRODUCTION

A threatened abortion is vaginal bleeding that occurs in the first 20 weeks of pregnancy. The bleeding is sometimes accompanied by abdominal cramps. The actual cause of a threatened abortion isn’t always known. Vaginal bleeding occurs in almost all threatened miscarriages. Abdominal cramps may also occur. Analgesia will help relieve pain from cramping. Bed rest has not been shown to improve outcomes but commonly is recommended. Physical activity precautions and abstinence from sexual intercourse are also commonly advised. 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.

Key words: threatened, miscarriage, HCG therapy, bleeding

POSSIBLE CAUSES

Possible causes of bleeding include:

- Implantation of the embryo
- Infection
- Irritation, which may occur after intercourse
- Miscarriage
- The baby develops outside of the uterus—ectopic pregnancy
- Molar pregnancy (rare growth inside the uterus)

RISK OF THREATENED ABORTION

The actual cause of a threatened abortion isn’t always known. However, there are certain factors that may increase your risk of having one. These include:
Book picture

- a bacterial or viral infection during pregnancy: Acute infections, including German measles, CMV (cytomegalovirus), mycoplasma (atypical pneumonia) and other unusual germs can also cause miscarriage.
- trauma to the abdomen
- advanced maternal age (over age 35)
- exposure to certain medications or chemicals

Other risk factors for a threatened abortion include obesity and uncontrolled diabetes.

### SYMPTOMS

Symptoms of a threatened miscarriage include:

- Vaginal bleeding during the first 20 weeks of pregnancy (last menstrual period was less than 20 weeks ago). Vaginal bleeding occurs in almost all threatened miscarriages.
- Abdominal cramps may also occur. If abdominal cramps occur in the absence of significant bleeding, consult health care provider to check for other problems besides threatened miscarriage.

<table>
<thead>
<tr>
<th>Book picture</th>
<th>Patient picture</th>
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<tbody>
<tr>
<td>Vaginal bleeding</td>
<td>Mrs. X had spotting of blood through vagina 3 times a day.</td>
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<tr>
<td>Tissue or clot-like material may pass from the vagina.</td>
<td>No abdominal cramps or pain felt.</td>
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Abdominal cramps may also occur

- low back pain or abdominal pain (dull to sharp, constant to intermittent) can occur.
- They may be on one side, both sides, or in the middle. The pain can go into the lower back, buttocks, and genitals

Fever

### DIAGNOSIS

Tests that may be done include:

- Ultrasound: Transvaginal ultrasound may be used to locate the pregnancy and determine if the fetus is viable. The ultrasound can also help rule out an ectopic pregnancy and to evaluate for retained products of
conception. A yolk sac is typically seen at 36 days, and a heartbeat is seen on ultrasound at approximately 45 days after the last menstruation.

- Fetal heart monitoring
- Blood tests: The diagnosis is made by measurement of beta-human chorionic gonadotropin (beta-hCG) and an ultrasound.

- A beta-hCG level of 1500 IU/mL to -2000 IU/mL is associated with a gestational sac on ultrasound. A beta-hCG doubles in 48 hours in 85% of intrauterine pregnancies. Beta-hCG is usually detectable the first nine to 11 days following ovulation and reaches 200 IU/mL at the expected time of menses.
- Rh factor will also determine if Rhogam should be administered to prevent hemolytic disease of the newborn in this pregnancy and subsequent pregnancies.
- A hemoglobin and hematocrit are helpful in monitoring the degree of bleeding.
- A urine analysis can also be obtained. Urinary tract infection (UTI) has been associated with abortions

- Pelvic exam: During the pelvic exam, suction may be needed to remove blood and products of conception to allow for better visualization of the cervix. Ringed forceps can also be used to remove tissue that may be protruding from the cervical os. All tissue must be examined to determine if it is clot or products of conception.
- Tissue tests: If tissue passed, it can be sent to a lab to confirm that a miscarriage has occurred.
- Chromosomal tests: If they had two or more previous miscarriages, health care provider may order blood tests for both to determine if chromosomes are a factor.

For Mrs. X, ultrasonogram was taken and the cardiac activity of the fetus and sac are seen. Advised to repeat scan after one week.

**TREATMENT**

Patients with a threatened abortion should be managed expectantly until their symptoms resolve. Patients should be monitored for progression to an inevitable, incomplete, or complete abortion.

Analgesia will help relieve pain from cramping. Bed rest has not been shown to improve outcomes but commonly is recommended. Physical activity precautions and abstinence from sexual intercourse are also commonly advised.

- **Bed rest**
  Today, almost 1 out of 5 women is on restricted activity or bed rest at some point during her pregnancy.

However, studies of bed rest have not found evidence that bed rest helps with any of these conditions. It doesn't lower the risk of complications or early delivery.

- **HCG therapy**
  Human chorionic gonadotrophin (also called hCG) is a hormone produced by the placenta and is known to help maintain the pregnancy. Hence there has been much interest in the use of hCG for treating threatened miscarriage with the aim of preserving the pregnancy.

  - Progesterone therapy: **Usual Adult Dose for Fetal Maturation**-- Vaginal insert:
    Initial dose: 100 mg vaginally 2 to 3 times a day, starting the day after oocyte retrieval
    Duration of therapy: Up to 10 weeks total.
  - **8% vaginal gel**: 90 mg vaginally once a day for progesterone supplementation or
90 mg vaginally twice a day with partial or complete ovarian failure requiring progesterone supplementation
Duration of therapy: Up to 10 to 12 weeks, until placentation autonomy is achieved
Use: To support embryo implantation and early pregnancy by supplementation of corpus luteal function

- Tocolytic agents
- Repeat pelvic ultrasound weekly until a viable pregnancy is confirmed or excluded.
- A miscarriage cannot be avoided or prevented, and the patients should be educated as such. Intercourse and tampons should be avoided to decrease the chance of infection.

A warning should be given to the patient to return to the emergency department if there is heavy bleeding or if the patient is experiencing lightheadedness or dizziness. Heavy bleeding is defined as more than one pad per hour for six hours. The patient should also be given instructions to return if they experience increased pain or fever.

All patients with vaginal bleeding who are Rh-negative should be treated with Rhogam. Because the total fetal blood volume in less than 4.2 mL at 12 weeks, the likelihood of fetal blood mixture is small in the first trimester. A smaller RhoGam dose can be considered in the first trimester. A dose of 50 micrograms to 150 micrograms has been recommended. A full dose can also be used. Rhogam should ideally be administered before discharge. However, it can also be administered by the patient's obstetrician within 72 hours if the vaginal bleeding has been present for several days or weeks.

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.

For Mrs. X inj HCG 5000IU was administered intramuscularly and advised to repeat scan after one week.

**PREVENTION**

Preventing the miscarriages by detecting and treating the disease before becoming pregnant.

Other factors that can increase your risk for miscarriage include:

- Obesity
- Thyroid problems
- Uncontrolled diabetes

Most miscarriages cannot be prevented. The most common cause of a miscarriage is a random genetic abnormality in the developing pregnancy. If you have two or more repeated miscarriages, you should consult a specialist to find out if you have a treatable condition that is causing the miscarriages. Women who get prenatal care have better pregnancy outcomes for themselves and their babies.

A healthy pregnancy is more likely when you avoid things that are harmful to your pregnancy, such as:

- Alcohol
- Infectious diseases
- High caffeine intake
- Recreational drugs
- X-rays

Taking a prenatal vitamin or folic acid supplement before becoming pregnant and throughout your pregnancy can lower your chance of miscarriage and improve the chance of delivering a healthy baby.
Bibliography

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