Abortions, or so-called miscarriages, frequently occur in the context of precocious pregnancies. Generally, the affected people consult a gynecologist since vaginal bleeding occurs during pregnancy. There are different forms of abortions, which can be very painful but also asymptomatic. Mostly, removal of the fetus is necessary to avoid infections or further bleeding.

Introduction

An abortion corresponds to a pregnancy, which ends before viability of the fetus. With a prevalence of 10-20 %, abortions are very frequent. Most of all, vitality signs of the child are important in the context of the different forms.

Note: A typical symptom of spontaneous abortions is vaginal bleeding.

Abortus Imminens

Abortus imminens refers to the **imminent miscarriage**, and it is **generally reversible**. Typically, patients present with vaginal bleeding and a (still) closed uterine orifice.

**Pregnancy is still intact** and infantile heart sounds are still detectable. In terms of
therapy, physical rest with the administration of magnesium should be sought.

**Missed Abortion**

This is a form of abortion, which mostly has an asymptomatic course. Usually, the diagnosis is made during routine examinations. Hereby, no infantile heart sounds can be heard anymore. **Curettage** (= scraping) is first-line therapy.

![Image: "Delayed or missed miscarriage at 13 weeks," by Mikael Häggström. License: Public Domain]

**Abortus Incipiens**

This corresponds to a **beginning miscarriage**. The uterine orifice is already opened due to labors. Typical symptoms are vaginal bleeding with pain in the lower abdomen and **absent infantile heart sounds**. First-resort therapy is also **curettage**.

**Abortus Incompletus**

This is an **incomplete miscarriage**. Parts of the **trophoblast** are already shed. The uterine orifice is completely opened and **infantile heart sounds cannot be detected anymore**. The patients often describe severe vaginal bleeding with pain in the lower abdomen. In this case, therapeutic intervention is also still necessary to remove the necrotic trophoblast.
Abortus Completus

At this form, the embryo is already **completely shed**, therefore **curettage** is not necessary. Clinically, the uterus is rather small and hardened. The vaginal bleeding usually halts.
Habitual Abortion

**Three or more consecutive spontaneous abortions** happen in the event of habitual abortion. Etiologically, different factors can play a role, e.g., genetic changes in the sense of chromosome aberrations. Mostly, those are balanced translocations.

A PCO-syndrome (= polycystic ovarian syndrome) can be another cause, since follicle maturation is disturbed in this case. Furthermore, anatomic changes can lead to spontaneous abortions. Sometimes, immunological causes also play a role in the context of habitual abortions. Frequently, an antiphospholipid syndrome is present, at which thrombo-embolic events occur from roughly the second trimenon forward and cause the miscarriage.

After extensive diagnostics, the cause for habitual abortions is usually found. Therapeutically, the patients are then treated causally, e.g., with surgical correction of uterus anomalies or with immunological therapy if antiphospholipid antibodies are present.

**Therapy of Abortions and Miscarriages**

Concerning therapy, cerclage, tocolysis and lung maturation induction can be considered, in addition to an abrasion (= curettage). The abrasion represents first-resort therapy in case of precocious pregnancies. Curettage means the scraping of the cavum uteri, where the cavum is scraped up to the superficial mucosa.

If the pregnancy is already progressed, and if the affected person is already in the 24th week of pregnancy, tocolysis and lung maturation induction can be performed since the child is considered viable in this situation. Tocolysis is the inhibition of labors. It can occur via medication with beta-2-sympathomimetics (e.g., fenoterol) or magnesium sulfate.

Lung maturation induction occurs via glucocorticoids. At the interval of 24h, 12 mg of betamethasonbeta-2-sympathomimetics are injected twice. These measures induce surfactant production of the pneumocytes and, thus, prevent a respiratory distress syndrome in the child.

After repeated spontaneous abortions and imminent cervical insufficiency, cerclage can become necessary. With this procedure, the physician tries to form the internal orifice of the uterus and keep it together via absorbable threads.

**Review Questions**

The correct answers can be found below the references.

1. In the context of a control examination, you detect absent heart sounds in a pregnant woman in the 22nd + 4 week of pregnancy. The patient is in a good general state of health and had no abdominal pain. Which of the following diagnoses is most likely?
   
   A. Abortus incipiens  
   B. Abortus imminens  
   C. Missed abortion  
   D. Abortus incompletus  
   E. Abortus completus
2. A woman in the 4th + 3 week of pregnancy presents with vaginal bleeding. In an ultrasound examination, you diagnose an abortion. In the uterus, there is the residue of the amniotic cavity. Which measure is the therapy of first choice?

A. Cerclage  
B. Lung maturation induction  
C. Tocolysis with prostaglandins  
D. Curettage  
E. Tocolysis with magnesium sulfate

3. A woman repeatedly presents with abortions. From the previous findings, you know that this is the fourth abortion in a row. The wish for a child in the partnership is very big. Which is the most frequent cause for this?

A. Antiphospholipid syndrome  
B. Eclampsia  
C. Pre-eclampsia  
D. Respiratory distress syndrome  
E. HELLP-syndrome

References


Correct answers: 1C, 2D, 3A

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