Ectopic Pregnancy: Factors and Treatments

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Abstract. An ectopic pregnancy is a condition in which a fertilised egg lodges and develops outside the uterus, usually in the fallopian tube. However, sometimes an ectopic pregnancy can develop in the ovary, cervix, or abdominal cavity. This research article discusses the treatment and diagnostic methods and possible complications.

Key words: ectopic pregnancy, abortion, fallopian tube rupture, peritonitis, hypovolemic shock, ovarian cysts, endometriosis, chorion.

Introduction. An ectopic pregnancy (international name: "ectopic pregnancy") is an abnormal pregnancy where the attachment of the fertilised egg occurs outside the uterine cavity. Ectopic pregnancy is considered to be a condition requiring emergency medical attention.

Normally, fertilisation (fusion of a woman's egg and a man's sperm) takes place in the fallopian tube. Immediately after fusion, the resulting foetal egg moves into the uterine cavity due to the progressive contraction of the fallopian tubes. Here it is fixed to the wall (implantation occurs) and further develops.

If the foetal egg for some reason remains in the fallopian tube or is pushed in the opposite direction, into the abdominal cavity, and attached to the ovaries and other internal organs, there is an ectopic pregnancy. Its danger is the development of internal bleeding. This occurs due to the fact that the foetal egg, as it grows, can traumatising the surrounding tissues. As a result, there is a rupture of the fallopian tube, the corner of the body of the uterus (if the ectopic pregnancy is located in the extra horn). Untimely medical care can cost the life of a woman. In this paper we have studied and analysed modern scientific literature as well as the works of specialists in this field.

Results: An ectopic pregnancy occurs when the fertilised egg fails to reach the uterine cavity or when the egg moves in the wrong direction. This can occur due to problems with the structure or function of the fallopian tube, inflammatory diseases, previous pelvic surgery, hormonal changes or other medical conditions.

An ectopic pregnancy is unacceptable and requires immediate medical intervention as it can lead to tubal rupture, haemorrhage and other serious health complications, up to and including death. Treatment for ectopic pregnancy may include surgical removal of the embryo or the use of drugs that can cause the embryo to resorb or expel from the body.
Complications: An ectopic pregnancy can be life-threatening and may require urgent medical intervention. Some life-threatening conditions that can occur with an ectopic pregnancy include:

1. Rupture of fallopian tube: One of the most serious complications of an ectopic pregnancy is its rupture, which can lead to internal bleeding. This condition requires immediate surgical intervention to stop the bleeding and remove the ectopic pregnancy.

2. Bleeding from ectopic pregnancy: Ectopic pregnancy can cause bleeding, especially if the fallopian tube ruptures or other complications occur. Severe bleeding can lead to blood loss and in some cases shock and danger to the patient's life.

3. Peritonitis: A ruptured ectopic pregnancy can lead to internal bleeding and infection, which can cause peritonitis, an inflammation of the peritoneum (the membrane covering the abdominal organs). Peritonitis is a serious and life-threatening condition requiring urgent surgical intervention and antibiotics.

4. Hypovolaemic shock: Severe haemorrhage caused by ruptured ectopic pregnancy can lead to hypovolaemic shock, a condition in which cardiac output is reduced due to significant blood loss. Hypovolaemic shock requires urgent resuscitative measures, including restoration of circulating blood volume and blood supply to organs.

Differential diagnosis: ectopic pregnancy involves identifying the exclusion of other possible pathological conditions that may mimic the symptoms of ectopic pregnancy. Some of these conditions include:

1. Delayed menses: Non-appearance of menses can be due to various reasons including pregnancy. Therefore, the first step in diagnosing an ectopic pregnancy is to confirm or rule out the presence of pregnancy using pregnancy tests.

2. Abortion: Some types of abortion can mimic the symptoms of ectopic pregnancy. For example, in cases of premature placental abruption, there may also be vaginal bleeding, soreness, and decreased blood pressure. However, abortion usually lacks levels of human chorionic gonadotropin (hCG) in the blood, which are usually elevated in ectopic pregnancy.

3. Gastrointestinal diseases: Some gastrointestinal diseases such as appendicitis, peptic ulcer or intestinal obstruction can cause lower abdominal pain similar to the symptoms of ectopic pregnancy. However, in these cases, other pregnancy symptoms such as delayed periods and a positive pregnancy test are usually absent.

4. Gynaecological processes: Some gynaecological conditions such as ovarian cysts, inflammatory processes or endometriosis can mimic the symptoms of ectopic pregnancy. As in the previous cases, confirming or excluding pregnancy is the first step in the differential diagnosis.

5. Intrauterine breast mesh: In some rare cases, breast mesh (intrauterine contraceptive device) can cause similar symptoms to ectopic pregnancy. This can usually be avoided with an ultrasound scan.

Types of treatment: There are several methods of surgical treatment for ectopic pregnancy and the choice of method depends on various factors such as the size and location of the ectopic pregnancy, the woman’s condition and the doctor’s preference.

1. laparoscopic salpingostomy: This is a minimally invasive approach that uses laparoscopic equipment to insert instruments through small incisions in the abdomen. The doctor makes a small incision in the fallopian tube to remove the embryo and save the tube.
2. Laparoscopic salpingectomy: In this case, the fallopian tube is completely removed. This may be necessary if the tube is severely damaged or there is a risk of rupture.

3. Laparotomy: This is a more invasive surgery in which the doctor makes a larger incision in the abdomen to gain access to the internal organs. The external incision is usually made vertically along the midline of the abdomen. A laparotomy may be necessary if the ectopic pregnancy is large or there are other complications.

4. Embryoectomy by hysteroscopy: In some cases where the ectopic pregnancy develops in the uterine cavity or cervix, a procedure to remove the embryo by hysteroscopy may be performed. A hysteroscope is inserted into the uterine cavity through the cervix and the embryo is removed or destroyed using instruments.

Factors: The doctor considers several factors when choosing how to surgically treat an ectopic pregnancy:

1. Location of the ectopic pregnancy: If the embryo is in the fallopian tube, methods of preserving or removing only that tube are possible. If the ectopic pregnancy develops elsewhere, such as in the ovary, then removal or preservation of the organ involved is possible.

2. Size and condition of the ectopic pregnancy: Large or complicated ectopic pregnancies may require more invasive methods of removal or removal of the organ involved. Smaller and uncomplicated ectopic pregnancies may be successfully removed with a lesser degree of invasiveness.

3. The patient's reproductive plans: If the woman plans to preserve the possibility of a future pregnancy, the physician may prefer a method that promotes the preservation of healthy tissue and tubes.

4. General condition of the patient: If the woman has other medical problems or complications, closer monitoring or more invasive treatments may be required.

5. The doctor's skills and preferences: The doctor chooses the method based on his experience, skills and preferences, taking into account all the factors mentioned above.

In summary, the tactics and treatment algorithm depends on factors such as: location of the ectopic pregnancy, size and condition of the ectopic pregnancy, reproductive plans of the patient, general condition, skills of the physician as well as the degree of invasiveness, likelihood of complications and treatment methods, which emphasises the importance of the physician's careful approach to this condition.

Conclusions: Having analysed this paper it can be summarised that the treatment of ectopic pregnancy depends on many factors from the reproductive plans of the patient and the personal skills of the physician to the diagnostic method and the general condition of the patient which may be contrary to a particular treatment method. Ectopic pregnancy should be treated immediately and therefore the method of diagnosis and the type of treatment should be carefully chosen by the attending physician to avoid complications, iatrogeny and life-threatening complications.

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