CONDITION

Cervical pregnancy

Learn how cervical pregnancy is diagnosed and treated, including symptoms, bleeding risks, follow-up care, and when to seek emergency help.

WHAT IT IS
Rare ectopic pregnancy implanted in the cervical canal

BODY SYSTEM
Reproductive system

MAIN SYMPTOMS
Vaginal bleeding, pelvic pressure or cramping, lower abdominal pain, dizziness or fainting

WHAT CAUSES IT
Often unknown

HOW IT IS DIAGNOSED
Transvaginal ultrasound

MAIN TREATMENT
Medication, bleeding-control procedures, or surgery

CAN IT BE CURED?
Yes, treatment ends the pregnancy

IS IT AN EMERGENCY?
Sometimes, heavy or rapidly increasing bleeding

LONG-TERM OUTLOOK
Fertility often preserved, depending on treatment and uterus

Overview

A cervical pregnancy is a rare type of ectopic pregnancy. An ectopic pregnancy occurs when a fertilized egg implants outside the main cavity of the uterus. In a cervical pregnancy, it implants within the cervical canal, below the opening between the cervix and the uterus.

The cervix is the narrow lower part of the uterus that opens into the vagina. It contains many blood vessels but has less muscle than the main body of the uterus. A pregnancy growing there can cause serious bleeding because the cervix may not contract well enough to close those blood vessels.

A cervical pregnancy cannot be moved into the uterus and cannot continue safely as a normal pregnancy. Prompt specialist assessment is important, even when there is little pain or bleeding. Early diagnosis may allow treatment that controls bleeding and preserves the uterus.

Cervical pregnancy is different from a pregnancy implanted in a previous cesarean scar. It is also different from a pregnancy inside the uterus that is passing through the cervix during a miscarriage. These conditions can look similar on an ultrasound but may require different treatment.

Symptoms

Vaginal bleeding is the most common symptom. It may begin as light spotting and can occur without pain. Some people have heavier bleeding or pass blood clots.

Possible symptoms include:

Some cervical pregnancies are found during an early ultrasound before symptoms begin. Having no symptoms does not remove the risk of bleeding.

Heavy or rapidly increasing bleeding requires urgent assessment. Call emergency services for bleeding with fainting, severe weakness, trouble breathing, confusion, pale or clammy skin, or severe abdominal, pelvic, or shoulder pain. Do not drive yourself if you feel faint.

Light spotting without pain may not be an emergency, but it still needs timely medical review during pregnancy. Contact the clinician managing your pregnancy for guidance.

- Vaginal spotting or bleeding after a missed period
- Pelvic pressure, cramping, or lower abdominal pain
- A positive pregnancy test without the usual ultrasound findings inside the uterus
- Dizziness, weakness, or fainting if substantial blood loss occurs

Causes and risk factors

The exact reason a pregnancy implants in the cervix is often unclear. Implantation may be influenced by changes in the lining or shape of the uterus and cervix. Many people diagnosed with cervical pregnancy have no identifiable risk factor.

Factors associated with cervical pregnancy include:

These factors do not mean that someone will develop a cervical pregnancy. They are also not evidence that the affected person caused it. Ordinary activities, exercise, sexual activity, or emotional stress are not recognized causes.

- Previous procedures that opened or scraped the cervix or uterus, such as dilation and curettage

- Previous cesarean birth or other uterine surgery
- In vitro fertilization or another assisted reproduction treatment
- Previous ectopic pregnancy
- Structural differences within the uterus
- Previous injury to the uterine lining

Diagnosis

Diagnosis usually begins with a pregnancy test, a review of symptoms, and a transvaginal ultrasound. During this type of ultrasound, a narrow probe is placed in the vagina to provide detailed images of the uterus and cervix.

Ultrasound findings that may support the diagnosis include an empty uterine cavity and a pregnancy sac located entirely within the cervical canal, below the internal opening of the cervix. Increased blood flow may be visible around the implantation site. The cervix may also appear enlarged or barrel-shaped.

An ultrasound specialist may gently assess whether the pregnancy tissue moves within the cervical canal. Tissue from a miscarriage may slide with light probe pressure, while an implanted cervical pregnancy usually remains attached. This is called the "sliding sign." It should be assessed only by trained clinicians.

Blood tests measure beta human chorionic gonadotropin, often shortened to beta-hCG. This hormone is produced during pregnancy. One hCG result cannot determine where a pregnancy is located. Repeat measurements may help clinicians evaluate how the pregnancy is changing and monitor treatment.

Other blood tests may include a complete blood count to check for anemia, blood typing, and tests of kidney or liver function if medication is being considered. Blood may be prepared for transfusion when significant bleeding is present or expected.

A pelvic examination is sometimes needed, but clinicians may limit manipulation of the cervix because touching the implantation site can trigger bleeding. Magnetic resonance imaging, or MRI, is occasionally used when ultrasound findings remain unclear and the patient is stable.

The main conditions that must be distinguished from cervical pregnancy are miscarriage in progress, cesarean scar pregnancy, and a very low pregnancy within the uterus. Review by a clinician experienced in early pregnancy ultrasound can be important.

Treatment and management

Treatment depends on bleeding, circulation and blood pressure, ultrasound findings, pregnancy development, hCG levels, future fertility goals, and the services available. Because cervical pregnancy is uncommon, care may involve obstetricians, maternal-fetal medicine specialists, gynecologic surgeons, radiologists, and blood-bank staff.

A person who is unstable or bleeding heavily needs emergency stabilization. Care may include intravenous fluids, blood transfusion, procedures to control bleeding, and surgery. In life-threatening situations, removal of the uterus, called hysterectomy, may be necessary.

For a stable cervical pregnancy diagnosed early, medication may be considered. Methotrexate stops rapidly growing pregnancy tissue. It may be given into a muscle, directly into the pregnancy, or through a combination of approaches. If cardiac activity is present, a specialist may discuss an additional medicine injected into the pregnancy.

Methotrexate is not appropriate for every patient. Clinicians review symptoms, test results, medical conditions, other medicines, and the ability to return for follow-up. Treatment does not end immediately after an injection. hCG levels must be monitored until the pregnancy tissue is no longer active, and further treatment may be needed.

Procedural treatment may involve removing pregnancy tissue through the cervix. Suction curettage used alone can cause severe bleeding, so specialists may combine it with measures that reduce or control blood flow. These may include:

Uterine artery embolization is performed by an interventional radiologist. A thin tube is guided through a blood vessel, and material is placed to reduce blood flow to the uterus. Its suitability and possible effects on future pregnancy should be discussed with the treating team.

Expectant management means close monitoring without immediate medicine or surgery. It is used only in selected circumstances because bleeding may occur unpredictably. It requires specialist oversight, reliable access to emergency care, repeat hCG testing, and often repeat ultrasound.

Treatment decisions can be emotionally difficult. A cervical pregnancy is a pregnancy loss as well as a medical condition. Counseling, bereavement support, or mental health care may be helpful.

- Placing a balloon inside the cervix to apply pressure
- Blocking the uterine arteries through uterine artery embolization
- Temporarily tying or closing selected blood vessels
- Removing tissue under hysteroscopic or ultrasound guidance

- Using medication before or during the procedure

Complications

The main complication is hemorrhage, meaning severe bleeding. Blood loss can lead to anemia, low blood pressure, fainting, the need for transfusion, or emergency surgery. Rarely, it can become life-threatening.

Other possible complications include:

Fertility can often be preserved, particularly when the condition is diagnosed early and bleeding is controlled. However, future fertility depends on the extent of treatment, any underlying fertility concerns, and whether the uterus remains intact. Evidence about future pregnancy after some procedures is limited because cervical pregnancy is rare.

- Pregnancy tissue that remains active after initial treatment
- Infection
- Medication side effects
- Injury to the cervix or uterus during a procedure
- Hysterectomy if bleeding cannot be controlled
- Emotional distress, grief, anxiety, or symptoms related to a traumatic experience

Follow up

Follow-up is essential even when bleeding has stopped and you feel well. Pregnancy tissue can remain active for a period after treatment.

The care team will usually arrange repeated hCG blood tests until the level reaches the target set by the treating clinician, often a nonpregnant or undetectable level. Ultrasound may be repeated to check the cervix and blood flow. Resolution can take time, especially after medical treatment.

Keep every scheduled appointment and make sure the care team has a reliable way to contact you. Ask whom to call outside normal clinic hours and where to go if bleeding begins.

During recovery, follow your clinician's advice about sexual activity, tampons, exercise, travel, medicines, and attempts to conceive. Recommendations may depend on the treatment received. If methotrexate was used, the care team will explain when it is medically appropriate to try for another pregnancy.

Seek prompt medical advice for increasing bleeding, worsening pain, fever, unpleasant-smelling discharge, or new weakness. Call emergency services for heavy bleeding accompanied by fainting, severe dizziness, breathing difficulty, confusion, or severe pain.

After recovery, discuss planning for a future pregnancy. Early contact with a maternity or early-pregnancy service can allow an ultrasound to confirm where the next pregnancy has implanted. A previous cervical pregnancy does not mean that another one will definitely occur.

Routine follow-up may also include a review of anemia, physical recovery, contraception if desired, and emotional well-being. Grief responses vary, and support remains appropriate even after the medical treatment is complete.

Sources

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