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Ovarian Torsion

Patient and family information, brought to you by the Education Committee of APSA

Overview - “What is it?”

The ovary is an organ in females that is important in reproduction. There are usually two ovaries (right and left) located in the lower belly, on either side of the womb (uterus). See Figure 1 below.

The ovary makes hormones for development of female organs and releases an egg once a month.

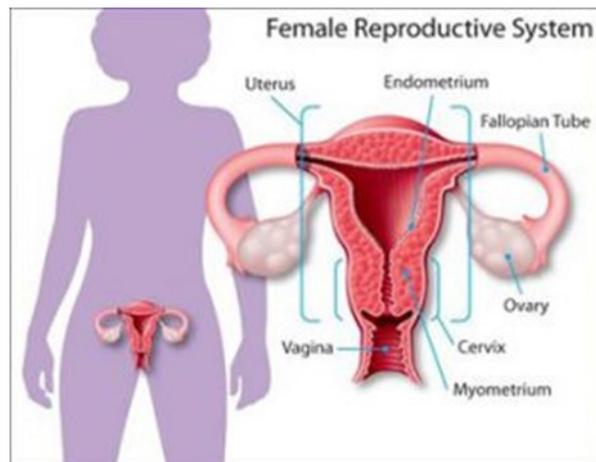


Figure 1. Image credit: <https://www.womenshealth.gov/publications/our-publications/fact-sheet/images/ovarian-cysts-lg.jpg>

Ovarian torsion is when the ovary twists around its blood vessels. The twisting cuts off the blood supply to the ovary, causing the ovary to possibly die. The Fallopian tube (tube that brings egg from the ovary to the womb) can also be involved in the twist. Ovarian torsion is considered a surgical emergency of the female reproductive organs. Sometimes a mass or cyst in the ovary can cause twisting. If the blood vessel connections to the ovary are long, this may also lead to torsion.

Signs and Symptoms - “What symptoms will my child have?”

Early symptoms: Pain in the lower belly, usually sharp and sudden when it starts.

Later symptoms: Worse pain that is constant, vomiting, or nausea

Conditions that mimic this condition: Appendicitis, urine infection, kidney stones, gastroenteritis, pregnancy

Diagnosis - “What tests are done to find out what my child has?”

The tests ordered for ovarian torsion are those that are generally done to find the causes of belly pain.

Blood work: Blood test to look at the infection count may be ordered. If there is a mass that looks like it is causing the torsion, then additional bloodwork may be needed.

Urine test: Urine test to look for infection, rule out pregnancy

Abdominal X-ray: A regular x-ray of the belly may be ordered to look for problems in general, such as constipation.

Ultrasound: An ultrasound uses sound waves to create an image. It does not use radiation. It is useful in looking at the ovary and also the appendix. The bladder has to be full when the ultrasound is being performed, so the child needs to drink a lot or get fluids through the vein and not pee before the ultrasound is done. The ultrasound may give an idea if there is a cyst or mass in the ovary, and if there is a problem with blood flow to the ovary.

Treatment - “What will be done to make my child better?”

Medical management: There is no medicine that can untwist the ovary. However, pain medications such as narcotics may be given if the child is in a lot of pain.

Surgery: Surgery is the only treatment for ovarian torsion. The goal of the operation is to untwist the ovary and Fallopian tube and restore blood flow to these organs. This can be done using open or laparoscopic approach.

In a laparoscopic procedure, small cuts are made on the belly. Through one of the cuts, a video camera is placed. The surgery itself is done using small instruments placed through the other incisions. The usual number of incisions (cuts) for laparoscopic surgery vary depending on the situation.

In an open approach, a cut is made on the bikini line or midline below the belly button. The ovary usually looks blue, swollen and may have clots inside even after it is straightened out. Often it is difficult to see if there is an associated mass or cyst that caused the torsion.

Preoperative preparation: This surgery is usually an emergency, and there are no preparations needed.

Postoperative care: Most patients are discharged the day after surgery. The child should be able to tolerate liquids before leaving.

Risks: Bleeding, infection, pain. Recurrence of the torsion is rare. The ovary may live or die after it is untwisted, depending on how long it suffered without blood flow. It is recommended that the ovary should remain inside because at the time of the operation, no one can predict if the ovary will live or die.

Benefits: Blood flow to the ovary is restored and the ovary may be saved.

Informed consent: A consent form is a legal document that states the tests, treatments, or procedures that your child may need and the doctor or practitioner that will perform them. Before surgery, your doctor should tell you what the operation is, the goal of the surgery and other possible treatment options that are available. Your doctor should explain the risks and benefits of the surgery. You give your permission when you sign the consent form. You can have someone sign this form for you if you are not able to sign it. You have the right to understand your child's medical care in words you know. Before you sign the consent form, make sure all of your questions are answered. It is important to know that during surgery, there are things that can happen that your doctor may have not predicted before going in. He or she will explain these to you after the surgery.

Home Care - "What do I need to do once my child goes home?"

Diet: Most patients are able to eat a regular diet after surgery.

Activity: General guidelines: For open procedures, no gym for 2-4 weeks. weight restriction of 10 pounds for six weeks. For laparoscopic surgery, no gym for 1-2 weeks, weight restriction of 10 pounds for one week, then no weight restriction. Ask your surgeon for specific recommendations.

Wound care: The patient can shower in three days but may want to wait 5-7 days after surgery before soaking the wound. Your surgeon will give you specific instructions.

Medicines: Medication for pain such as acetaminophen (Tylenol®) or ibuprofen (Motrin® or Advil®) or something stronger like a narcotic may be needed to relieve pain for a few days after surgery. Stool softeners and laxatives are needed to help regular stooling after surgery, especially if narcotics are still needed for pain.

What to call the doctor for: Problems that may indicate infection such as fevers, wound redness and drainage should be addressed.

Follow-up care: The patient should be seen by a surgeon or pediatrician/family practice doctor at least once to check the surgical wound. The surgeon will likely obtain an ultrasound a few weeks after surgery to see if there is a mass or cyst in the ovary that caused the torsion and if the ovary remained alive or scarred down.

Long Term Outcomes - “Are there future conditions to worry about?”

Surgeons try to save the ovary after torsion because the future ability to have children (fertility) decreases if an ovary and/or a fallopian tube is removed. If there is a cyst or a mass that is seen on follow-up ultrasound, this may require another operation. Overall, girls do very well after ovarian torsion.

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