CONDITION

Abscess - abdomen or pelvis

Learn about abdominal and pelvic abscesses, including symptoms, causes, diagnosis, drainage, antibiotic treatment, complications, and follow-up care.

WHAT IT IS
Pocket of infected fluid and pus in the abdomen or pelvis

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Abdominal or pelvic pain, fever or chills, nausea or vomiting, abdominal swelling or tenderness

WHAT CAUSES IT
Bacterial or other germ infection

HOW IT IS DIAGNOSED
CT, ultrasound or MRI

MAIN TREATMENT
Drainage and antibiotics, sometimes surgery

CAN IT BE CURED?
Yes, effective treatment can clear infection

IS IT AN EMERGENCY?
Sometimes, severe or rapidly worsening pain

LONG-TERM OUTLOOK
Depends on location, cause, health and treatment speed

Overview

An abdominal or pelvic abscess is a pocket of infected fluid and pus inside the abdomen or pelvis. It may form between loops of bowel, around an organ, beneath the diaphragm, or deep in the pelvis. Some abscesses develop within an organ, such as the liver or pancreas.

An abscess usually forms when the body tries to contain an infection. White blood cells, bacteria, damaged tissue, and fluid collect inside a walled-off space. Because that space may have limited blood flow, antibiotics like amoxicillin or doxycycline may not reach the infection well enough on their own.

Abdominal and pelvic abscesses often develop after inflammation, a hole in the digestive tract, abdominal surgery, or an injury. Examples include a burst appendix, complicated diverticulitis, or leakage from the bowel after an operation.

These abscesses matter because the infection can persist, damage nearby structures, or spread into the bloodstream. Most require prompt medical assessment. Treatment often combines antibiotics with source control , meaning drainage of the infected fluid and treatment of the problem that caused it.

The outlook depends on the abscess location, its cause, the person's overall health, and how quickly effective treatment begins. Many abscesses can be drained through the skin using imaging to guide a small tube. Others require an operation.

Symptoms

Symptoms vary with the abscess location and how quickly it develops. They may begin over several days or appear after an initial period of recovery from surgery or another abdominal illness.

Possible symptoms include:

A person recovering from abdominal surgery may stop improving or begin to feel worse. Warning signs can include a new fever, increasing pain, loss of appetite, an incision that drains fluid, or bowel function that does not return as expected.

Older adults and people with weakened immune systems may not develop a high fever. Their main signs may be confusion, weakness, poor appetite, or a decline in normal activity.

Seek urgent medical advice for persistent fever, worsening abdominal or pelvic pain, repeated vomiting, or new symptoms after abdominal surgery or treatment for appendicitis, diverticulitis, inflammatory bowel disease, or another abdominal infection.

Call emergency services for severe or rapidly worsening pain, fainting, marked confusion, difficulty breathing, cold or blotchy skin, or other signs of severe illness. These may occur when infection affects the whole body or blood pressure.

- Steady or worsening pain in the abdomen, side, back, rectal area, or pelvis
- Fever, chills, or sweating
- Loss of appetite, nausea, or vomiting
- Abdominal swelling or tenderness
- Diarrhea or constipation
- Pain with a bowel movement
- Frequent, difficult, or painful urination when an abscess is near the bladder

- Fatigue, weakness, or a general feeling of being unwell
- Unexpected weight loss when an infection has been present for a longer time

Causes and risk factors

An abscess can form when bacteria or other germs enter tissue that is normally protected. This often happens when inflammation, injury, or disease damages the wall of the stomach or intestine.

Common underlying causes include:

An abscess may contain bacteria normally found in the intestine. Infections can involve several types of bacteria at the same time, including bacteria that grow with little or no oxygen.

Factors that may increase the chance of developing an abscess or a more difficult infection include recent abdominal surgery, delayed treatment of a bowel perforation, poor blood supply to tissue, cancer, diabetes, malnutrition, or medicines and illnesses that weaken the immune system. Recent hospitalization or antibiotic exposure may increase the chance that the bacteria will resist commonly used antibiotics.

Having one of these risk factors does not mean that an abscess is present. Symptoms and imaging are needed to determine the cause of an illness.

- Appendicitis, especially if the appendix develops a hole or bursts
- Diverticulitis, which is inflammation of small pouches in the colon
- A perforated stomach or intestinal ulcer
- Crohn's disease or another condition that causes deep bowel inflammation
- Pancreatitis, including infection of damaged pancreatic tissue
- Gallbladder or bile duct infection
- Infection of a pelvic organ
- Abdominal trauma
- Leakage from an intestinal connection or other complication after surgery

Diagnosis

Diagnosis begins with a medical history and physical examination. The clinician will ask where the pain is located, when it started, and whether there has been recent surgery, injury, or

abdominal disease. The examination may identify tenderness, swelling, a surgical wound problem, or signs that the body is responding to infection.

Blood tests may show an increased white blood cell count or inflammation. Other tests can assess kidney and liver function, dehydration, anemia, and the level of lactate, a marker that may rise when tissues are under stress. Blood tests alone cannot confirm or exclude an abscess.

Imaging is usually central to diagnosis. A computed tomography, or CT, scan can show the size and location of an abscess, nearby inflammation, gas within a collection, and possible causes such as a perforated bowel. Intravenous contrast dye may make infection and nearby organs easier to assess, although its use depends on factors such as kidney function, allergies, and the clinical situation.

Ultrasound does not use radiation and may help evaluate abscesses in the pelvis, liver, or other accessible areas. It can also guide drainage. Bowel gas and deep tissue sometimes limit the view. Ultrasound or magnetic resonance imaging, known as MRI, may be considered when avoiding radiation is especially important, including during pregnancy. The best test depends on the suspected location and the person's condition.

If an abscess is drained, a sample of the fluid may be sent to a laboratory. A culture can identify the germs and help the care team decide whether the antibiotic treatment should change. Blood cultures may also be collected when bloodstream infection or severe illness is suspected.

Treatment and management

Treatment has two main goals: control the source of infection and treat germs that may have spread beyond the abscess.

Many abdominal or pelvic abscesses are drained. During percutaneous drainage , a radiologist uses CT or ultrasound images to guide a needle through the skin into the collection. A flexible tube called a catheter may be left in place so the fluid can continue to drain. The tube may remain for days or longer, depending on the amount of fluid, the abscess cavity, and whether there is an ongoing leak.

Drainage through the skin may not be possible if there is no safe path to the abscess, the infected material is too thick, or the source requires repair. Surgery may be needed to wash out infection, remove damaged tissue, repair a hole, treat a bowel leak, or address an infected organ. The procedure may be performed through small incisions or an open incision, depending on the circumstances.

Selected small and well-contained collections may sometimes be managed without a drainage procedure. That decision requires clinical and imaging assessment because the abscess location, cause, symptoms, and risk of treatment failure all matter.

Antibiotics are usually given when an abdominal or pelvic abscess is suspected or confirmed. Initial treatment often covers several types of intestinal bacteria. The choice depends on where the infection began, whether it developed in the community or hospital, recent antibiotic use, local resistance patterns, allergies, organ function, illness severity, and culture results.

Treatment may begin through a vein and later change to an oral medicine if the infection is controlled and the person can eat, absorb medicines, and continue recovering. The duration varies. It is influenced by whether drainage or surgery successfully controlled the source and whether fever, pain, blood tests, and other findings improve. Patients should take antibiotics exactly as directed and should not use leftover antibiotics.

Supportive treatment may include fluids, pain control, nausea treatment, nutrition, and management of conditions such as diabetes. A person who is very ill may need close monitoring and support for blood pressure, breathing, or organ function.

Complications

An untreated or incompletely controlled abscess may grow, return, or spread infection into nearby tissue. It may rupture into the abdominal cavity and cause peritonitis , an infection and inflammation of the lining inside the abdomen.

Bacteria may enter the bloodstream and trigger sepsis, the body's dangerous response to infection. Sepsis can affect blood pressure and the function of the kidneys, lungs, brain, and other organs.

An abscess may also form an abnormal connection called a fistula . For example, a channel can develop between the intestine and the skin, bladder, or abscess cavity. A continuing bowel leak can make an abscess difficult to heal.

Other possible complications include bowel blockage, infection beneath the diaphragm that affects breathing, poor nutrition, delayed wound healing, or repeated abscess formation. Drainage procedures can also have risks, such as bleeding, injury to a nearby structure, catheter blockage, or incomplete drainage. The treatment team considers these risks when planning care.

Follow up

Follow-up is important after drainage, surgery, or antibiotic treatment. The care team may review pain, fever, appetite, bowel and bladder function, the surgical wound, and laboratory results. Repeat imaging is not needed in every case, but it may be used when symptoms do not improve, return, or suggest that fluid remains.

If a drainage catheter is in place, follow the specific instructions for emptying the collection bag, recording the amount and appearance of fluid, flushing the tube if instructed, and keeping the dressing clean. Do not pull, clamp, or remove the catheter unless the care team directs you to do so.

Contact the treating team promptly if the tube stops draining unexpectedly, falls out, leaks around the skin, or causes increasing redness or pain. Also report a returning fever, worsening abdominal symptoms, repeated vomiting, inability to take medicines, or new drainage from a wound.

Routine follow-up may include deciding when to remove a catheter, completing antibiotic treatment, and addressing the underlying cause. For example, a person may need later care for Crohn's disease, diverticular disease, or a surgical bowel leak. Some procedures are delayed until the infection and inflammation have settled.

Emergency assessment is appropriate for severe pain, fainting, confusion, trouble breathing, rapidly worsening weakness, or signs of shock such as cold skin and reduced alertness.

Sources

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