CONDITION

granuloma inguinale

Granuloma inguinale is a sexually transmitted bacterial infection that causes slowly enlarging genital ulcers.

WHAT IT IS
Sexually transmitted infection causing long-lasting genital ulcers

BODY SYSTEM
Genitals and nearby skin

MAIN SYMPTOMS
Painless ulcers, red tissue, easy bleeding, genital swelling

WHAT CAUSES IT
Infection with Klebsiella granulomatis bacteria

HOW IT IS DIAGNOSED
Ulcer tissue microscopy or biopsy

MAIN TREATMENT
Several weeks of antibiotics

CAN IT BE CURED?
Yes, antibiotics usually clear the infection

IS IT AN EMERGENCY?
Sometimes, with uncontrolled bleeding or severe illness

LONG-TERM OUTLOOK
Usually good after treatment, but relapse can occur

Overview

Granuloma inguinale is a bacterial sexually transmitted infection. It is also called donovanosis. It mainly affects the skin around the genitals, anus, and groin.

The condition causes ulcers, which are open sores in the skin. These sores usually grow slowly and are often painless. They may look moist and beefy red and can bleed easily when touched.

Granuloma inguinale is uncommon in many parts of the world. It has been reported more often in some tropical and subtropical regions. A person's symptoms and travel or sexual history may therefore help guide testing, but anyone with a genital ulcer needs a proper assessment.

Without treatment, the ulcers can become larger and damage nearby tissue. Effective antibiotics like amoxicillin or doxycycline can usually clear the infection. Treatment often

needs to continue for several weeks, and follow-up matters because the condition can return after an ulcer appears to have healed.

Genital ulcers can have several causes, including herpes, syphilis, other infections, skin conditions, and cancer. An ulcer's appearance alone is not enough to diagnose granuloma inguinale.

Symptoms

Symptoms usually begin as one or more small bumps beneath the skin. The bumps may break down into ulcers that slowly spread across nearby skin.

Typical features include:

The ulcers often have raised or rolled edges. Some become deeper, dry, or firm rather than having the classic red appearance. A secondary infection with other bacteria can make an ulcer painful or cause an unpleasant smell.

Nearby lymph nodes are usually not swollen. However, inflamed tissue under the skin can sometimes form groin lumps called pseudobuboes. These are not true enlarged lymph nodes.

Less often, infection can affect the mouth or other areas after direct contact with an ulcer. Symptoms outside the genital area need medical assessment because they may have another cause.

- Painless, moist ulcers with a bright or beefy-red surface
- Tissue that bleeds easily after touching or rubbing
- Ulcers around the penis, vulva, vagina, anus, groin, or perineum
- Gradual swelling, scarring, or changes in the shape of nearby tissue

Causes and risk factors

Granuloma inguinale is caused by a bacterium called Klebsiella granulomatis . The bacteria live inside certain immune cells in infected tissue.

The infection is thought to spread mainly through sexual contact involving affected skin. Transmission appears to require close, repeated contact, and it may be less easily passed on than some other sexually transmitted infections. Rare nonsexual transmission has been reported, but the details are not always clear.

Risk is higher when you have sexual contact with someone who has an untreated ulcer. Risk

may also be higher if you live in or have sexual contact in an area where the infection still occurs.

Condoms and internal condoms can reduce contact with infected tissue. They do not provide complete protection if an ulcer is on skin that the barrier does not cover.

Granuloma inguinale is not inherited. It is not caused by poor personal hygiene, toilet seats, or sharing ordinary household items.

Diagnosis

Arrange an assessment for any new or unexplained genital or anal ulcer. A healthcare professional will ask when the sore began, whether it is painful, and whether you have had recent sexual contact or travel that may be relevant. They will examine the ulcer and nearby skin.

Granuloma inguinale is confirmed by finding characteristic bacteria within cells from the ulcer. A sample may be taken by gently scraping or pressing tissue from the edge of the sore onto a microscope slide.

A biopsy may be needed. This involves removing a small piece of tissue after numbing the area. A laboratory examines it for structures called Donovan bodies, which are immune cells containing the bacteria. A biopsy can also help rule out cancer and other conditions that may look similar.

Growing Klebsiella granulomatis in a laboratory is difficult, so standard bacterial culture is not generally used. Molecular tests that detect bacterial genetic material may be available in specialist laboratories, but access is limited.

Testing usually also covers other causes of genital ulcers, particularly syphilis and herpes. HIV testing and screening for other sexually transmitted infections may be offered because more than one infection can be present at the same time.

Treatment and management

Granuloma inguinale is treated with antibiotics. Several antibiotic options are available, and the choice may be affected by pregnancy, allergies, other medicines, and local guidance.

Treatment generally lasts for at least three weeks and continues until all ulcers have healed. Larger or long-standing ulcers may take longer to clear. It is important to complete the recommended course even if the sore improves earlier.

If the ulcer is not starting to improve, the diagnosis and treatment plan may need to be reviewed. A second antibiotic is sometimes added. Further testing or a biopsy may be needed to look for another infection, antibiotic resistance, or a noninfectious cause.

Wound care may include keeping the area gently clean and using a non-stick dressing if an ulcer rubs against clothing. Avoid harsh antiseptics or picking at the tissue, as it can bleed easily.

You should avoid sexual contact while ulcers are present and until treatment is complete. Recent sexual partners should be told so they can be examined. A partner may have no symptoms. Whether preventive antibiotic treatment is offered will be decided through a sexual health service because evidence about treating symptom-free contacts is limited.

Follow-up continues until the skin has healed. Later follow-up may also be advised because relapse can occur 6 to 18 months after apparently successful treatment.

Complications

Untreated ulcers can slowly expand and damage the skin and deeper tissue. Healing may then leave permanent scars or changes in the shape of the genitals.

Long-standing inflammation can block normal lymph drainage. This may cause marked swelling of genital tissue, sometimes called genital elephantiasis. The term describes severe swelling caused by trapped lymph fluid.

Other possible complications include:

Long-lasting genital ulcers can sometimes resemble skin cancer. Rare reports have also linked chronic lesions with cancerous changes. An ulcer that persists, returns, becomes firm, or does not respond to treatment may need a biopsy.

Granuloma inguinale can increase the chance of acquiring or passing on HIV because an open ulcer makes it easier for the virus to cross the skin.

- Secondary bacterial infection of an open ulcer
- Narrowing of the urethra, vagina, or anus because of scarring
- Persistent genital swelling or discomfort
- Heavy bleeding from fragile ulcer tissue
- Rare spread to deeper structures or other parts of the body

Prevention

Granuloma inguinale can often be prevented by avoiding direct contact with an infected ulcer.

Using condoms or internal condoms during vaginal or anal sex lowers risk. A condom will not cover every area of genital skin, so protection is incomplete when sores are outside the covered area.

Other practical steps include:

There is no vaccine for granuloma inguinale. Washing after sex does not prevent it and may irritate already damaged skin.

- Avoid sexual contact when you or a partner has an unexplained genital sore
- Have new genital ulcers assessed without waiting for them to heal
- Complete treatment and wait until ulcers have fully healed before sex
- Tell recent sexual partners so they can arrange an examination
- Use regular sexual health testing based on your circumstances

Living with it and what to expect

Most people can be cured with an appropriate course of antibiotics. The ulcer should gradually become smaller, less fragile, and less likely to bleed. Complete healing may take several weeks, especially when a lesion is large or has been present for a long time.

Antibiotics remove the infection, but they cannot always reverse established scarring or tissue changes. If scarring affects urination, bowel movements, sexual comfort, or movement, additional specialist care may be needed after the infection has cleared.

Relapse is possible months after treatment. A new sore near the original site does not always mean a new exposure. It may represent bacteria that were not fully cleared. It could also have another cause, so it needs reassessment rather than restarting leftover antibiotics.

During treatment, loose clothing and non-stick dressings may reduce rubbing. Bleeding can usually be managed with gentle, steady pressure using clean gauze. Sexual health clinics can often provide confidential testing, treatment, and partner notification support.

Granuloma inguinale does not create reliable immunity. This means that having it once does not prevent another infection after future exposure.

When to get medical help

Arrange a prompt, routine appointment with a sexual health clinic or other healthcare service if you notice a new genital, anal, or groin ulcer. Seek assessment even if the sore is painless or seems to be improving.

You should also arrange follow-up if:

Seek urgent medical care if bleeding continues despite firm, steady pressure, or if swelling makes it difficult to pass urine.

Call emergency services for severe uncontrolled bleeding, fainting, confusion, breathing difficulty, or signs of severe illness. These are not typical features of uncomplicated granuloma inguinale and may point to significant blood loss or another urgent condition.

- An ulcer is not improving during treatment
- A healed ulcer returns
- You develop increasing swelling, pain, discharge, or a bad smell
- Scarring affects urination, bowel movements, or sexual activity
- A sexual partner has been diagnosed with granuloma inguinale

Common questions

Is granuloma inguinale the same as genital herpes?

No. Granuloma inguinale is caused by bacteria, while genital herpes is caused by a virus. Herpes commonly causes groups of painful blisters or ulcers, although symptoms can differ. Testing is needed because appearance alone may not separate them.

Is granuloma inguinale curable?

Yes. Appropriate antibiotics usually clear the infection. Treatment often lasts several weeks and continues until the ulcer has fully healed. Follow-up is important because a relapse can occur months later.

How did I get donovanosis?

It is usually acquired through direct sexual contact with infected skin or an ulcer. Symptoms may not appear immediately, and it may not be possible to determine exactly when transmission happened. A diagnosis does not establish when or from whom the infection was acquired.

Can I have sex while being treated?

Avoid sexual contact while ulcers remain and until treatment is complete. An ulcer may still contain bacteria even when it looks smaller. Partners should be assessed before sexual

contact resumes.

Will the ulcers leave scars?

Small ulcers treated early may heal with little visible change. Larger, deeper, or long-standing ulcers are more likely to leave scars, swelling, or changes in tissue shape. Antibiotics treat the infection but do not always remove established scar tissue.

Can granuloma inguinale come back?

Yes. Relapse can occur 6 to 18 months after treatment, even when an ulcer seemed to have healed. A returning sore should be examined because it could also be a new infection or a different condition.

Sources

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