CONDITION

Sporotrichosis

Sporotrichosis is a fungal infection that usually causes slow-growing bumps or ulcers on the skin.

WHAT IT IS
Fungal infection affecting skin or, rarely, deeper organs

BODY SYSTEM
Skin, lymph channels, lungs, joints, and nervous system

MAIN SYMPTOMS
Painless skin bump, ulcer, chain of nodules

WHAT CAUSES IT
Infection with Sporothrix fungi

HOW IT IS DIAGNOSED
Fungal culture of tissue, fluid, or respiratory samples

MAIN TREATMENT
Antifungal medicines; surgery for selected severe cases

CAN IT BE CURED?
Yes, most cases clear with antifungal treatment

IS IT AN EMERGENCY?
Sometimes, with breathing or neurological symptoms

LONG-TERM OUTLOOK
Most skin infections heal; deep infection needs prolonged care

Overview

Sporotrichosis is an infection caused by fungi from the Sporothrix group. These fungi live in soil and on plants, moss, hay, and other decaying material. Some species also spread from infected animals, especially cats.

The condition usually begins when the fungus enters through a small break in the skin. This can happen after a thorn prick, splinter, gardening injury, or animal scratch or bite. The first sign is often a firm, painless bump on a finger, hand, or arm.

The infection may remain in one area or spread through lymph channels, which carry fluid through the body. This can produce a line of bumps extending up an arm or leg. Sporotrichosis is sometimes called "rose gardener's infection," but roses are only one possible source.

Most cases affect the skin and can be cured with antifungal medicine. Less often, the fungus is inhaled into the lungs or spreads to joints, bones, the brain, or other organs. These forms are more serious and usually need longer treatment.

Symptoms

Symptoms often appear several weeks after exposure, although the timing is not always clear. Because the infection usually develops slowly and may not cause fever or much pain, it can be mistaken for an insect bite, bacterial infection, or other skin condition.

Skin symptoms may include:

The most common pattern is lymphocutaneous sporotrichosis. In this form, new nodules appear along nearby lymph channels. These channels are part of the immune system and help drain fluid from tissues.

Fixed cutaneous sporotrichosis stays close to the original injury. It may cause one persistent bump, plaque, or ulcer without a chain of nodules.

Pulmonary sporotrichosis affects the lungs, usually after fungal spores have been inhaled. Possible symptoms include a long-lasting cough, shortness of breath, chest discomfort, fever, fatigue, or coughing up blood. These symptoms can resemble tuberculosis or other lung conditions.

When the infection reaches bones or joints, it may cause ongoing joint pain, stiffness, swelling, or reduced movement. Infection involving the brain and its coverings can cause severe headache, confusion, neck stiffness, weakness, or seizures.

Eye infection can cause redness, pain, swelling, discharge, light sensitivity, or changes in vision.

- A firm pink, red, or purple bump where the fungus entered
- A sore or ulcer that may release clear fluid
- Additional bumps forming in a line along an arm or leg
- Mild swelling or tenderness around the affected area

Causes and risk factors

Sporotrichosis is caused by Sporothrix fungi. The fungus usually enters through injured skin rather than passing through healthy, unbroken skin.

Activities that involve soil, plants, or organic material can increase exposure. Examples include

gardening, farming, forestry work, landscaping, handling hay, and working with sphagnum moss. Even a tiny puncture that you do not remember can provide an entry point.

Cats can carry large amounts of the fungus in their skin sores, claws, and mouth. Scratches, bites, or contact with fluid from an infected cat's wounds may spread the infection. Cat-associated transmission has been especially important in parts of Brazil and elsewhere in Latin America.

Most people with skin sporotrichosis do not develop infection throughout the body. The risk of deep or widespread infection is higher in people with a weakened immune system, including those with advanced HIV infection, certain blood cancers, or medicines that suppress immune activity.

Chronic heavy alcohol use and underlying lung conditions are associated with pulmonary or widespread sporotrichosis. These factors do not mean that a person will develop severe infection.

Sporotrichosis does not usually spread through casual contact between people.

Diagnosis

Sporotrichosis cannot be confirmed from appearance alone. Several infections and inflammatory skin conditions can produce similar bumps or ulcers.

The main confirmation test is a fungal culture. A health professional collects material from the affected area, such as fluid, pus, a small tissue sample, sputum from the lungs, or fluid from a joint. A laboratory then tries to grow and identify the fungus. Growth may take several days or longer.

A skin or tissue biopsy may also be performed. During a biopsy, a small sample is removed and examined under a microscope. This can show inflammation and help rule out cancer or other infections, although the fungus may be difficult to see.

Blood tests are not usually enough to confirm ordinary skin sporotrichosis. Imaging such as a chest X-ray, CT scan, MRI, or bone scan may be needed when symptoms suggest lung, bone, joint, or nervous system involvement.

Tell the health professional about gardening injuries, plant or soil exposure, travel, and contact with cats or other animals. This history can help guide the choice of tests.

Treatment and management

Sporotrichosis does not usually clear without treatment. The treatment plan is based on where the infection is, how severe it is, and whether your immune system is weakened.

An oral antifungal medicine called itraconazole is commonly used for skin and lymph-channel infection. Treatment generally continues for several months and often extends beyond the point when the skin appears healed. Deeper infection may require a much longer course.

Severe, widespread, lung, bone, joint, or nervous system sporotrichosis may be treated initially with an intravenous antifungal medicine, commonly a form of amphotericin B. Once the infection is stable, treatment may change to an oral antifungal. Some lung or bone infections also need surgery.

Other antifungal like fluconazole or terbinafine approaches may be considered when standard treatment is unsuitable or ineffective. Not every antifungal works reliably against Sporothrix , so treatment should be based on the confirmed diagnosis and clinical form.

Antifungal medicines can interact with other medicines and may affect the liver or other organs. Monitoring may include blood tests and review of side effects. Tell the prescribing professional about all medicines, supplements, pregnancy, or plans for pregnancy before treatment begins.

Do not stop treatment just because a sore has closed. Ending it too soon can allow the infection to return. If a dose is missed or side effects develop, ask the prescribing team how to proceed rather than changing treatment yourself.

Keep affected skin clean and covered with a dry dressing if it is draining. Avoid squeezing or cutting the nodules.

Complications

Most treated skin infections heal, although discoloration or a scar may remain. Delayed treatment can allow more nodules or ulcers to form along a limb.

Possible complications include:

Deep or widespread sporotrichosis can be difficult to treat and may return, especially while immune suppression continues. Medicine side effects and interactions are also important reasons to attend follow-up appointments.

- Secondary bacterial infection of an open sore
- Persistent or returning infection after incomplete treatment
- Chronic joint or bone damage

- Cavities and lasting damage in the lungs
- Spread to several organs in people with reduced immunity
- Meningitis, meaning infection around the brain and spinal cord

Prevention

There is no vaccine against sporotrichosis, and every exposure cannot be prevented. Practical barriers can reduce the chance that the fungus will enter the skin.

When gardening, farming, or handling moss, hay, soil, wood, or thorny plants, wear gloves, long sleeves, trousers, and closed footwear. Wash cuts and punctures with soap and water soon after they occur.

Avoid touching the sores or drainage of an animal suspected of having sporotrichosis. If contact is unavoidable, use gloves and wash your hands afterward. Keep the animal away from other animals and seek veterinary care. Do not abandon or handle an infected cat roughly, because this can increase scratching and spread infection.

People with weakened immune systems should be especially careful around cats with unexplained wounds, particularly in places where cat-associated sporotrichosis is known to occur.

Living with it and what to expect

Skin sporotrichosis usually changes slowly. Nodules may remain visible for weeks after treatment starts, so lack of immediate clearing does not always mean the medicine is failing. Over time, successful treatment should stop new lesions from appearing and allow existing sores to flatten and heal.

Treatment commonly lasts for months. Regular follow-up helps check that the infection is responding, that medicine is being absorbed, and that side effects are manageable. A culture or further assessment may be needed if lesions continue to enlarge or return after treatment.

Scars or changes in skin colour may remain after the fungus has been cleared. These marks are not necessarily a sign of active infection.

Bone, joint, lung, or nervous system infection usually requires longer care. Joint stiffness, reduced movement, or lung symptoms can continue even after treatment because the infection may leave structural damage. Rehabilitation or specialist follow-up may help with these effects.

Many people with limited skin infection return to their usual activities while taking treatment. Covering a draining lesion protects it from irritation and reduces contact with the fluid. Routine social contact does not normally spread sporotrichosis.

When to get medical help

Arrange a routine medical assessment if you have a skin bump or ulcer that does not heal, particularly after a thorn injury, gardening work, handling moss or soil, or contact with a cat that has skin sores. A line of new bumps moving up an arm or leg also needs assessment.

Contact your treatment team promptly if lesions are spreading, symptoms return after improving, or medicine causes persistent vomiting, severe diarrhoea, yellowing of the skin or eyes, dark urine, unusual swelling, or a widespread rash.

Seek same-day medical care for a painful red eye, light sensitivity, eye swelling, or changes in vision.

Seek urgent or emergency help for:

These symptoms can have several causes. They need urgent assessment rather than confirming sporotrichosis by themselves.

- Severe trouble breathing or coughing up more than a small streak of blood
- New confusion, seizure, fainting, or marked weakness
- Severe headache with neck stiffness
- Rapidly worsening illness in someone with a weakened immune system

Common questions

Is sporotrichosis contagious?

It does not usually spread from one person to another through everyday contact. Infected cats can spread the fungus through scratches, bites, and fluid from their sores. Wear gloves if you must handle an affected animal and arrange veterinary care.

Can sporotrichosis go away on its own?

It can remain active for a long time and may slowly spread along lymph channels. Medical treatment is usually needed. A sore closing temporarily does not confirm that the fungus has gone.

How long does sporotrichosis take to heal?

Skin lesions may take weeks to begin clearly improving, and antifungal treatment commonly continues for several months. Lung, joint, bone, or widespread infection generally requires longer treatment. The exact course is affected by the infection site and immune health.

Is sporotrichosis the same as ringworm?

No. Both are fungal infections, but they are caused by different fungi and behave differently. Ringworm usually affects the outer layers of skin and often produces a scaly, ring-shaped rash. Sporotrichosis commonly causes deeper bumps, ulcers, or a line of nodules.

Do roses cause sporotrichosis?

Roses do not directly cause it. A thorn can push contaminated plant material or soil into the skin. The fungus may also be found around moss, hay, wood, and other organic material.

Can my cat give me sporotrichosis?

Yes, an infected cat can spread the fungus through scratches, bites, or contact with draining lesions. Cats with unexplained wounds, especially on the face, paws, or tail, should be assessed by a veterinarian. Avoid direct contact with their sores.

Sources

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