CONDITION

Erysipeloid

Erysipeloid is a bacterial skin infection linked to handling infected animals or animal products.

WHAT IT IS
Localized bacterial skin infection after animal or animal-product exposure

BODY SYSTEM
Skin and soft tissues

MAIN SYMPTOMS
Painful purple-red patch, burning, swelling, slow outward spread

WHAT CAUSES IT
Infection with Erysipelothrix rhusiopathiae bacteria

HOW IT IS DIAGNOSED
Clinical assessment and deep tissue culture

MAIN TREATMENT
Antibiotics; intravenous treatment for bloodstream infection

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

IS IT AN EMERGENCY?
Sometimes - fever or rapidly worsening illness

LONG-TERM OUTLOOK
Usually full recovery after appropriate treatment

Overview

Erysipeloid is an uncommon bacterial infection of the skin. It is caused by Erysipelothrix rhusiopathiae , a bacterium carried by many animals, fish, birds, and shellfish.

The infection usually enters through a small cut, puncture, or scrape while someone is handling an infected animal or contaminated animal product. It most often affects the hands or fingers.

A typical infection causes a painful, well-defined purple-red patch that slowly expands. It may burn, itch, or feel warm. Unlike many other bacterial skin infections, erysipeloid usually does not produce pus.

Most cases remain limited to the skin and respond well to antibiotics like amoxicillin or doxycycline . Rarely, the bacteria enter the bloodstream or infect a heart valve. Recognizing

fever, widespread lesions, or significant illness is therefore important.

Erysipeloid is not the same as erysipelas . Erysipelas is a different skin infection, usually caused by streptococcal bacteria.

Symptoms

Symptoms commonly begin within several days of an injury or exposure. The exact injury may be so small that you do not remember it.

The localized skin form is sometimes called Rosenbach erysipeloid. It usually affects a finger, hand, or another area that touched animal tissue.

Typical features include:

The area may feel warmer than the surrounding skin, but intense heat and pus are unusual. Nearby lymph nodes can become tender, although this is not common.

Some people develop several skin lesions in different places. This generalized skin form may occur with fever or other symptoms and needs prompt assessment.

A bloodstream infection can cause fever, chills, weakness, headache, muscle aches, or a general feeling of being unwell. A skin lesion is not always present. If a heart valve becomes infected, symptoms may include continuing fever, shortness of breath, unusual tiredness, or chest discomfort.

- A clearly outlined red, blue-red, or purple patch
- Burning, tenderness, itching, or throbbing pain
- Swelling around the affected area
- A raised edge that slowly spreads outward
- Fading in the centre as the border expands
- Stiffness or discomfort when moving a nearby finger or joint

Causes and risk factors

Erysipeloid happens when E. rhusiopathiae enters broken skin. The bacterium can survive in animals and in contaminated animal material.

Exposure is more likely while handling:

People who work as fish handlers, butchers, meat processors, farmers, veterinarians, cooks, or

animal workers may have more opportunities for exposure. The condition can also occur after preparing fish or meat at home.

A puncture from a fish spine, bone, knife, hook, or other contaminated object can provide an entry point. Existing cracks from dry skin or dermatitis may do the same.

Bloodstream infection is more likely in people with weakened immune systems or certain long-term health conditions. Chronic liver problems and heavy alcohol use have been reported among people with serious infection. However, severe infection can occasionally occur without an obvious risk factor.

Erysipeloid is not inherited. It is not generally passed from one person to another.

- Fish, shellfish, or seafood
- Raw meat or poultry
- Pigs, sheep, cattle, or other livestock
- Animal bones, hides, waste, or carcasses

Diagnosis

A healthcare professional will examine the skin and ask about recent work, hobbies, injuries, and contact with animals, fish, meat, or shellfish. Mentioning this exposure is important because erysipeloid can resemble other skin problems.

The diagnosis may be based on the appearance of the lesion and a clear exposure history. When confirmation is needed, a sample can be taken for laboratory culture. A culture attempts to grow and identify the bacterium.

A surface swab may be negative because the bacteria tend to sit deeper in the skin. A small tissue sample, fluid taken from the advancing edge, or another deeper sample may be more useful. A skin biopsy may also help when the diagnosis remains uncertain.

Blood cultures are used when there is fever, widespread infection, or concern that the bacteria have entered the bloodstream. If bloodstream infection is confirmed, heart tests such as an echocardiogram may be needed. An echocardiogram uses sound waves to examine the heart and its valves.

Other possible explanations include ordinary cellulitis, an allergic reaction, a viral finger infection, or irritation from something that touched the skin. Testing and the exposure history help separate these conditions.

Treatment and management

Erysipeloid is treated with antibiotics. Penicillin-type antibiotics are commonly used, but other options are available when they are not suitable. The choice may be guided by allergies, the infection's severity, culture results, and which part of the body is affected.

A localized infection can sometimes fade without treatment over several weeks. Antibiotics usually shorten the illness and may reduce the chance of the infection spreading. Do not rely on waiting for it to clear if erysipeloid is suspected.

Bloodstream, heart valve, bone, or joint infections require treatment in hospital. Antibiotics are then usually given through a vein. Heart valve infection may need a longer course of treatment and, in some cases, heart surgery.

This bacterium is naturally resistant to some antibiotics that are often used for other skin infections. That is another reason to describe any fish, meat, or animal exposure when seeking care.

There is usually no abscess, which is a pocket of pus, to drain. Cutting, squeezing, or attempting to drain the patch at home may injure the skin and is not helpful.

While the area heals, protect it from further cuts and contamination. Follow instructions for wound care, and complete any prescribed antibiotic course unless the prescribing professional tells you to stop or change it.

Complications

Most localized infections heal without lasting damage. Complications are uncommon but can be serious when they occur.

The infection may spread into nearby tissue or affect a joint or bone. Swelling and pain around a finger joint can temporarily limit movement.

If bacteria enter the bloodstream, they can travel to other parts of the body. One important complication is endocarditis, an infection of the inner lining of the heart or a heart valve. This can damage the valve and interfere with normal blood flow.

Other rare complications include infection of the brain, lungs, bones, or joints. These are mainly associated with bloodstream infection rather than a single localized skin patch.

Persistent fever, several new lesions, or worsening general illness may indicate that the infection is no longer limited to the skin.

Prevention

Erysipeloid cannot always be prevented because tiny skin injuries may go unnoticed. There is no routinely used human vaccine.

You can reduce exposure when handling animals, fish, shellfish, raw meat, or animal waste:

Gloves do not remove every risk, especially when working with sharp objects. Safe handling practices and early cleaning of wounds remain important.

Erysipeloid is usually acquired through broken skin, not by eating properly handled and cooked food. Ordinary contact with someone who has erysipeloid is not considered a usual route of spread.

- Cover cuts and cracked skin with waterproof dressings
- Wear intact waterproof gloves when practical
- Use care around fish spines, hooks, knives, and animal bones
- Wash new cuts promptly with soap and running water
- Clean work surfaces and tools using appropriate workplace procedures
- Replace gloves that become torn or punctured

Living with it and what to expect

With suitable treatment, a localized infection often begins improving within a few days. Pain and burning may ease before the skin colour returns to normal. The patch's outline or discoloration can remain visible for a while as the skin recovers.

Without treatment, a localized lesion may continue expanding slowly before fading over several weeks. Because other infections can look similar and because spread is possible, medical assessment is safer than assuming it will resolve by itself.

Most people have a one-time infection and return to their usual activities after healing. Erysipeloid does not usually cause an ongoing skin condition or permanent limitation.

Having it once does not provide reliable protection against another infection. People with repeated occupational exposure can be infected again, so protective measures remain useful.

Recovery from bloodstream or heart valve infection takes longer. Follow-up may include repeat blood tests, heart imaging, or monitoring for returning fever and shortness of breath. The long-term outlook is affected by which organs were involved and whether a heart valve was damaged.

When to get medical help

Arrange a prompt medical assessment if a painful purple-red patch develops after handling fish, shellfish, meat, animals, or animal products. Seek advice sooner if the patch is expanding or movement of a nearby finger or joint is becoming painful.

Contact a healthcare service urgently if you have:

Call emergency services for severe shortness of breath, confusion, fainting, blue or grey skin, severe chest pain, or difficulty staying awake. These symptoms can occur with a serious bloodstream infection or another medical emergency.

Routine follow-up is appropriate if the lesion is steadily improving but has not completely faded. Follow-up is also useful if movement remains limited or symptoms return after treatment.

- Fever, chills, or marked weakness
- Several new skin lesions
- Rapidly increasing swelling or pain
- Symptoms that worsen despite antibiotics
- A weakened immune system and a possible infected wound
- A known heart valve problem and signs of infection

Common questions

Is erysipeloid contagious?

It is not usually spread between people. Most infections follow direct contact between broken skin and an infected animal, fish, shellfish, raw meat, or contaminated animal material.

How is erysipeloid different from cellulitis?

Erysipeloid often forms a sharply outlined purple-red patch that spreads slowly and causes burning pain. Pus and high fever are unusual in localized cases. Ordinary cellulitis is often brighter red, warmer, more swollen, and less clearly defined. An examination may be needed because their appearances can overlap.

Will erysipeloid go away on its own?

A localized case may fade without treatment over several weeks. Antibiotics usually speed recovery and reduce concern about spread, so a suspected infection should still be assessed.

Can I get erysipeloid from eating fish or meat?

The usual route is through a cut or puncture while handling contaminated animal material. Eating properly handled and cooked food is not the typical way people develop this skin infection.

Why was my wound swab negative?

The bacteria may be located deeper in the skin rather than on its surface. If laboratory confirmation is needed, a deeper tissue or fluid sample from the lesion's edge may be more useful than a surface swab.

Can erysipeloid come back?

Yes. Recovery does not provide reliable immunity. Another exposure through damaged skin can cause a new infection, particularly in people who regularly handle fish, meat, livestock, or animal products.

Sources

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