CONDITION

Hypersensitivity vasculitis

Hypersensitivity vasculitis is inflammation of small skin blood vessels, often causing raised purple spots on the legs.

WHAT IT IS
Inflammation of small blood vessels, usually in the skin

BODY SYSTEM
Skin and blood vessels

MAIN SYMPTOMS
Raised purple spots, leg swelling, burning, joint aches

WHAT CAUSES IT
Immune reaction, often triggered by medicines or infection

HOW IT IS DIAGNOSED
Skin biopsy, often with direct immunofluorescence

MAIN TREATMENT
Trigger removal, skin care, and anti-inflammatory medicines

CAN IT BE CURED?
Sometimes - often clears after trigger removal

IS IT AN EMERGENCY?
Sometimes - fever or internal organ symptoms

LONG-TERM OUTLOOK
Usually clears, but persistent or recurrent cases occur

Overview

Hypersensitivity vasculitis is inflammation of very small blood vessels, usually those in the skin. It often causes crops of red or purple spots, especially on the lower legs.

The name is sometimes used interchangeably with cutaneous small-vessel vasculitis or leukocytoclastic vasculitis . Leukocytoclastic describes the pattern of damaged inflammatory cells seen under a microscope. "Hypersensitivity" is an older term and does not always mean that a true allergy has been found.

The inflammation happens when the immune system damages blood vessel walls. Small amounts of blood can then leak into the skin, creating spots that do not fade when pressed. Many are slightly raised and can be felt with a fingertip. This is called palpable purpura .

In many people, the condition stays limited to the skin and settles within several weeks. However, a similar rash can occur when vasculitis affects the kidneys, digestive system, nerves, lungs, or other organs. Medical assessment is therefore important, particularly when the rash is new.

Symptoms

The typical rash appears on both lower legs, although it may spread to the thighs, buttocks, trunk, or arms. Areas exposed to pressure or prolonged standing may be more affected.

Common features include:

New spots may appear in crops over several days. Older spots can change from purple to brown as they heal. Brown staining may remain for weeks or months because blood pigments have been left in the skin.

Some people also have a mild fever, tiredness, muscle aches, or joint pain. These symptoms do not always mean that internal organs are affected, but they should be discussed during assessment.

Symptoms outside the skin may suggest broader vasculitis. These can include blood in the urine, reduced urine, abdominal pain, blood in the stool, numbness, weakness, shortness of breath, or coughing up blood.

- Small red or purple spots that do not turn pale when pressed
- Raised spots or larger bruise-like patches
- Burning, tenderness, itching, or swelling
- Ankle or joint aches
- Blisters, crusts, ulcers, or darkened skin in more severe cases

Causes and risk factors

The inflammation is thought to result from an immune reaction. Proteins called antibodies can join with other substances to form immune complexes . These may settle in small blood vessels and trigger inflammation.

Possible triggers include:

Antibiotics like amoxicillin or doxycycline , anti-inflammatory medicines, and several other medicine groups have been linked with small-vessel vasculitis. However, a medicine should not

be assumed to be responsible simply because it was taken before the rash. Timing, other possible causes, and sometimes biopsy findings must be considered.

Do not stop a prescribed medicine abruptly unless a healthcare professional advises you to do so. Some medicines need to be reduced gradually or replaced safely.

In many cases, no specific trigger is found. This is called idiopathic vasculitis. It does not mean that something was missed or that the condition is inherited.

- A recently started medicine
- An infection, including some respiratory infections
- An inflammatory or autoimmune condition
- Certain blood disorders or cancers
- Another form of vasculitis, such as IgA vasculitis

Diagnosis

A clinician will examine the rash and ask when it began, whether it comes and goes, and whether you have other symptoms. Bring an up-to-date list of prescription medicines, non-prescription products, and supplements. The timing of recent infections and newly started medicines is particularly useful.

A skin biopsy is usually the test that confirms small-vessel vasculitis. After local anaesthetic numbs the area, a small sample of affected skin is removed and examined under a microscope.

A second sample may be tested using direct immunofluorescence . This test uses fluorescent markers to look for immune proteins in the skin. For example, IgA deposits may support a diagnosis of IgA vasculitis. Biopsy results need to be interpreted alongside your symptoms because several conditions can produce a similar microscopic pattern.

Blood and urine tests do not usually confirm skin vasculitis by themselves. They help look for a trigger, measure inflammation, and check whether organs such as the kidneys or liver are affected. Tests may include a blood count, kidney and liver function, and urinalysis. Further immune, infection, or imaging tests are chosen according to your history and symptoms.

Blood pressure and urine checks are important because early kidney involvement may not cause obvious symptoms.

Treatment and management

Treatment is based on the severity of the rash, whether a trigger can be removed, and whether the condition affects anything beyond the skin.

When a medicine is the likely trigger, the prescribing clinician may recommend stopping or replacing it. An infection or underlying inflammatory condition may need its own treatment.

Mild, skin-limited vasculitis often improves with supportive care. Resting during a painful flare, raising swollen legs, and avoiding long periods of standing may reduce discomfort. Compression garments may help some people, but they are not suitable for everyone, particularly when circulation is poor or the skin is ulcerated.

Simple skin care can protect fragile areas. Avoid rubbing or scratching the rash. Any open areas may need dressings and review for infection.

A clinician may suggest medicine for itching or pain. Persistent, recurrent, ulcerating, or very uncomfortable skin disease may be treated with anti-inflammatory medicines such as colchicine, dapsone, or a corticosteroid like prednisone or hydrocortisone . These treatments require individual assessment and may need blood tests or other monitoring. Evidence for some treatments is limited because large clinical trials are uncommon.

Vasculitis involving the kidneys, lungs, digestive system, nerves, or other organs needs specialist care. Treatment then targets the specific form of vasculitis and the organs involved rather than the skin rash alone.

Complications

Most skin-limited episodes heal without permanent damage. Possible skin complications include ulcers, infection of broken skin, scarring, and long-lasting brown discolouration.

A small number of people have repeated or persistent episodes. Recurrent disease may require another search for medicines, infections, autoimmune conditions, or other underlying causes.

The main concern is that what appears to be skin-only vasculitis may sometimes be part of a condition affecting internal organs. Kidney inflammation can cause blood or protein in the urine. Digestive involvement can cause significant abdominal pain or bleeding. Nerve inflammation may lead to numbness or weakness.

These complications are not present in most skin-limited cases, but they explain why urine testing and a review of symptoms are often part of the initial assessment.

Prevention

There is no reliable way to prevent a first episode because the trigger is often unknown.

If a particular medicine is confirmed as the likely cause, avoiding that medicine may reduce the chance of another episode. Make sure the medicine and the reaction are recorded in your medical notes. Ask whether related medicines also need to be avoided rather than making that assumption yourself.

Treating an identified underlying infection or inflammatory condition may reduce further episodes. Even after a trigger is removed, the rash can take time to settle because inflammation already present in the vessels must heal.

Living with it and what to expect

A single skin-limited episode often settles over several weeks. Individual spots may fade while new ones continue to appear, so improvement may not happen all at once. Brown marks can remain after active inflammation has ended.

Standing and heat may make the lower-leg rash look more noticeable. Swelling, tenderness, or open sores can temporarily limit walking, exercise, or work that involves long periods on your feet. Activity can usually be increased as comfort and skin healing allow.

Follow-up may include checking the rash, blood pressure, urine, and any new symptoms. If all findings remain limited to the skin and the rash clears, prolonged monitoring may not be needed. Persistent or recurring disease may need dermatology or rheumatology follow-up.

A recurrence does not automatically mean that internal organs are affected. However, it is worth arranging a review because the trigger and pattern can change over time. Take photographs of new crops if the rash fades before an appointment, and keep a record of recently started medicines or infections.

Most people with skin-limited hypersensitivity vasculitis return to their usual activities. The outlook is more dependent on the underlying cause and organ involvement when the vasculitis is not confined to the skin.

When to get medical help

Arrange a prompt medical appointment for a new rash that does not fade when pressed, especially if it is raised, painful, widespread, or associated with joint or general symptoms. A new rash after starting a medicine also needs timely assessment.

Seek same-day medical advice if you have:

Seek emergency care for severe shortness of breath, coughing up blood, fainting, confusion, a black or heavily bloody stool, or rapidly developing weakness. A non-blanching rash accompanied by fever and severe illness can have causes other than vasculitis and needs emergency assessment.

Routine follow-up is appropriate when the diagnosis is established, symptoms remain limited to the skin, and the rash is stable or improving. Contact your healthcare team sooner if new symptoms appear between planned visits.

- Blood in your urine or much less urine than usual
- Significant abdominal pain, vomiting, or blood in your stool
- New numbness, weakness, blisters, ulcers, or rapidly worsening skin pain
- Fever or marked illness with a spreading non-blanching rash

Common questions

Is hypersensitivity vasculitis an allergic reaction?

Not always. It is an immune-mediated inflammation of small blood vessels. A medicine can trigger it, but infections, inflammatory conditions, and unknown causes are also common. It is different from an immediate allergy that causes hives, facial swelling, or breathing difficulty.

Is hypersensitivity vasculitis contagious?

No. Vasculitis cannot spread from one person to another. An infection may sometimes trigger the immune reaction, but the resulting vasculitis itself is not contagious.

How long does the rash last?

A skin-limited episode often improves within several weeks, although new crops may appear during that time. Brown staining can remain for weeks or months after the active spots have healed. Persistent or worsening rashes need reassessment.

Can hypersensitivity vasculitis come back?

Yes. Some people have one episode, while others have recurrent crops or longer-lasting disease. Recurrence is more likely if a trigger remains present, but it can also happen without an identifiable cause.

Can it affect my kidneys?

It can, although many cases remain limited to the skin. Kidney inflammation may cause blood or protein in the urine without obvious symptoms. This is why urine, kidney function, and blood

pressure may be checked.

Can I exercise or go to work with the rash?

You can often continue activities that feel comfortable. Long periods of standing, heat, swelling, ulcers, or joint pain may make symptoms worse. Temporary rest and leg elevation can help during a flare, followed by a gradual return to usual activity.

Sources

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