CONDITION

Parinaud oculoglandular syndrome

Parinaud oculoglandular syndrome is one-sided eye inflammation with swollen lymph nodes caused by an infection near the eye.

WHAT IT IS
One-sided conjunctivitis with nearby swollen lymph nodes

BODY SYSTEM
Eyes and lymph nodes

MAIN SYMPTOMS
Red eye, eyelid swelling, discharge, nearby swollen lymph nodes

WHAT CAUSES IT
Infection, usually bacteria from animal or environmental exposure

HOW IT IS DIAGNOSED
Eye examination plus targeted blood, PCR, culture, or tissue tests

MAIN TREATMENT
Cause-specific antimicrobial treatment and supportive eye care

CAN IT BE CURED?
Yes - most cases clear after treating the infection

IS IT AN EMERGENCY?
Sometimes - sudden vision loss or severe eye pain

LONG-TERM OUTLOOK
Usually full recovery; outcome follows the underlying infection

Overview

Parinaud oculoglandular syndrome is a pattern of eye and lymph node inflammation. It usually affects one eye. The thin tissue covering the white of the eye becomes inflamed, and lymph nodes on the same side of the face or neck become swollen.

The inflamed eye may develop small raised bumps called granulomas. These are clusters of immune cells responding to infection or inflammation. A small sore may also appear on the inner eyelid.

The syndrome is usually caused by an infection that enters through, or affects, the tissue around the eye. Cat-scratch disease is a common cause. Tularemia and several less common infections can produce the same pattern.

Identifying the cause matters because treatments differ. Some infections improve without lasting problems, while others need prompt antimicrobial treatment. "Antimicrobial" means medicine that acts against bacteria, fungi, or other infectious organisms.

Despite the similar name, this condition is not the same as Parinaud syndrome. Parinaud syndrome is a neurological condition affecting eye movements because of a problem in the midbrain.

Symptoms

Symptoms usually develop in one eye. They may appear several days or weeks after contact with an infected animal, tick, plant material, soil, or contaminated water.

Possible eye symptoms include:

One or more lymph nodes usually enlarge on the same side as the affected eye. These may be in front of the ear, under the jaw, or along the neck. The nodes can feel tender and may remain enlarged after the eye begins to improve.

Some people also have fever, tiredness, headache, reduced appetite, or a general unwell feeling. The exact symptoms depend partly on the infection causing the syndrome.

Marked light sensitivity, severe pain, or reduced vision is not typical of uncomplicated conjunctivitis. These symptoms may mean that deeper parts of the eye are involved and need urgent assessment.

- Redness and irritation
- Eyelid swelling
- Watery, mucus-like, or pus-like discharge
- A gritty or foreign-body feeling
- Small raised bumps or a sore inside the eyelid
- Mild eye pain or tenderness
- Sensitivity to light

Causes and risk factors

Parinaud oculoglandular syndrome is most often caused by infection. The organism and likely exposure differ by location, occupation, hobbies, and animal contact.

Bartonella henselae , the bacterium responsible for cat-scratch disease, is a common cause. It

is associated with cats, especially kittens, and cat fleas. Infection may follow a scratch, bite, or contact between contaminated material and the eye. Many people do not remember a clear injury.

Tularemia is another important cause. It is caused by Francisella tularensis . People may encounter this bacterium through ticks, infected animals such as rabbits or rodents, contaminated water, or material that enters the eye while handling an animal.

Less common infectious causes include:

Risk may be higher with frequent animal contact, flea exposure, tick bites, gardening, farming, veterinary work, hunting, or handling wild animal tissue without eye protection.

Not every red eye with a swollen lymph node is this syndrome. Other infections, inflammatory conditions, and, rarely, abnormal lymph node growth can look similar. A medical examination is needed to sort out the cause.

- Sporotrichosis, a fungal infection associated with soil, plants, and infected cats
- Tuberculosis
- Syphilis
- Certain other bacterial, fungal, or viral infections

Diagnosis

Diagnosis begins with an eye examination and a careful history. You may be asked about cats, other animals, ticks, travel, outdoor activities, work exposures, and how quickly the symptoms developed.

An eye specialist may use a slit lamp, a microscope with a bright light, to inspect the eyelids, conjunctiva, cornea, and deeper eye structures. The lymph nodes around the ear, jaw, and neck are also examined.

Tests are chosen according to the suspected infection. They may include:

Antibody tests can be negative early because the immune system needs time to produce measurable antibodies. A later blood sample may sometimes be needed. PCR and cultures can also be negative, so results are interpreted alongside the examination and exposure history.

If tularemia is suspected, the laboratory needs to know because special handling precautions are required for samples.

- Blood tests for antibodies made in response to Bartonella , tularemia, or other infections

- Polymerase chain reaction, or PCR, to look for an organism's genetic material
- A swab, scraping, or culture from the eye
- Testing fluid from an enlarged lymph node
- A biopsy of conjunctival tissue or a lymph node when the diagnosis remains unclear

Treatment and management

Treatment focuses on the infection causing the syndrome. Bacterial causes may require antibiotics like amoxicillin or doxycycline , while a fungal cause needs antifungal treatment. The choice and length of treatment are based on the organism, the severity of illness, and whether infection has spread beyond the eye and nearby lymph nodes.

Eye drops alone may not treat an infection that also involves lymph nodes or other parts of the body. Antibiotic eye drops may still be used when there is a separate surface bacterial infection, but they are not a substitute for cause-specific treatment.

Supportive care can make the eye more comfortable. This may include preservative-free lubricating drops and a clean cool or warm compress, depending on what feels better. Avoid rubbing the eye.

Do not use leftover antibiotic or steroid eye drops. Steroid drops reduce inflammation but can worsen or hide some infections. They should be used only when prescribed after an eye examination.

Contact lenses should be removed while the eye is red, painful, or producing discharge. An eye professional can advise when it is safe to wear them again. Lenses, storage cases, and eye makeup used during an active infection may need replacement.

A very swollen or persistently enlarged lymph node may occasionally need imaging, fluid sampling, or biopsy. Surgery is not a routine treatment for the syndrome itself.

Complications

Most people recover without permanent loss of vision when the underlying infection is identified and managed.

Possible eye complications include persistent conjunctival inflammation, inflammation of the cornea, scarring, or infection involving deeper eye structures. Bartonella can sometimes affect the retina and optic nerve, which carries visual signals from the eye to the brain. This can cause blurred or reduced vision and requires specialist care.

A lymph node can occasionally become filled with pus or remain enlarged for an extended period. Persistent enlargement does not automatically mean that infection is still active, but it should be reassessed if it is growing, very painful, or not improving.

Some underlying infections can affect other organs. Tularemia, for example, can cause more widespread illness. The risk of complications is influenced by the specific organism, how quickly effective treatment begins, and a person's overall health.

Prevention

There is no guaranteed way to prevent Parinaud oculoglandular syndrome because exposure is not always noticed. There is also no single prevention method for all of its possible causes.

You can reduce the chance of some infections by:

Most common causes are not routinely passed from one person to another. However, good hand hygiene and not sharing towels or eye makeup are sensible while an eye is producing discharge.

- Washing your hands after handling cats, other animals, soil, or plant material
- Washing scratches and bites promptly with soap and water
- Avoiding touching or rubbing your eyes with unwashed hands
- Using gloves and eye protection when handling wild animals or carcasses
- Taking steps to prevent tick bites during outdoor activities
- Keeping cats on an appropriate flea-control program
- Avoiding rough play that encourages cats to scratch or bite
- Not allowing animals to lick your eyes or open wounds

Living with it and what to expect

The course depends mainly on the underlying infection. After effective treatment begins, fever and eye discomfort may improve before the visible redness or lymph node swelling has fully settled.

Eye inflammation often improves over days to weeks. Enlarged lymph nodes can take several weeks or sometimes months to return to their previous size. A slowly shrinking node is different from one that is continuing to grow or becoming more painful.

Follow-up may include another eye examination to confirm that the cornea, retina, and optic nerve remain healthy. Repeat blood tests may be needed when early antibody testing was negative or uncertain.

Parinaud oculoglandular syndrome is not usually a lifelong eye condition. Once the infection and inflammation have resolved, recurrence is uncommon unless there is another exposure or the original infection was not fully cleared. Most people return to their usual activities without ongoing vision problems, although recovery cannot be predicted for every individual.

Persistent redness, discharge, fever, or lymph node enlargement should be reviewed rather than assumed to be part of normal recovery.

When to get medical help

Arrange a prompt medical assessment for a red or swollen eye accompanied by a lump in front of the ear, under the jaw, or in the neck. Mention recent cat contact, scratches, tick bites, outdoor exposure, travel, or animal handling.

Seek same-day urgent care if you have:

Seek emergency care for sudden loss of vision, severe eye pain, inability to open or move the eye normally, confusion, fainting, or severe illness with breathing difficulty. These are not typical features of uncomplicated Parinaud oculoglandular syndrome and may indicate a deeper eye problem or widespread infection.

Routine follow-up is still important when symptoms are improving. It allows the eye to be checked for less obvious inflammation and confirms that enlarged lymph nodes are settling as expected.

- Increasing eye pain or marked sensitivity to light
- New blurred or reduced vision
- A red eye while wearing contact lenses
- Fever with worsening eye swelling
- Rapidly enlarging or very painful lymph nodes
- Symptoms that worsen after treatment begins

Common questions

Is Parinaud oculoglandular syndrome the same as Parinaud syndrome?

No. Parinaud oculoglandular syndrome involves conjunctivitis and nearby lymph nodes, usually because of infection. Parinaud syndrome affects eye movements because of a problem in the midbrain.

Can a cat scratch cause it?

Yes. Cat-scratch disease caused by Bartonella henselae is a common cause. A scratch is not always remembered, and exposure may also involve a bite, flea-contaminated material, or contact with the eye after handling a cat.

Is it contagious?

The syndrome itself is not generally spread between people. Its common causes, including cat-scratch disease and tularemia, are not usually transmitted by ordinary person-to-person contact. Eye discharge can contain other germs, so wash your hands and avoid sharing towels or eye makeup.

Will it damage my eyesight?

Most uncomplicated cases do not cause permanent vision loss. Blurred vision, severe pain, or strong light sensitivity may mean that the cornea, retina, optic nerve, or another deeper structure is involved. These symptoms need urgent assessment.

How long does it last?

Eye symptoms may last days to several weeks, depending on the cause and treatment. Lymph nodes often shrink more slowly and can remain noticeable for weeks or months. Ongoing or worsening symptoms need follow-up.

Can it clear without treatment?

Some cases of cat-scratch disease can improve on their own, but other causes require specific treatment and can look very similar at first. An examination and targeted testing help determine whether antimicrobial treatment is needed.

Sources

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