

CHRONIC SUPERFICIAL KERATOCONJUNCTIVITIS (PANNUS)

What is pannus?

Pannus is an inflammatory condition of the cornea and/or conjunctiva of the dog. It can be slowly progressive, although does appear to develop more rapidly in younger (2-4 years of age) dogs.

What causes pannus?

The cause of pannus is not clearly understood, but it is thought to be an immune-mediated disease. Certain predisposing factors are suspected as triggering the disease, including exposure to sunlight, high altitude and irritants such as smoke. Therefore it may be worse in the summer months, and somewhat improve over winter. Certain breeds are more prone to suffering with pannus, most noticeably German Shepherd dogs and German Shepherd cross dogs. Other breeds can also be affected, more commonly the Greyhound, the Border collie and the Shetland Sheepdog.

What are the signs of pannus?

The condition usually affects both eyes, but can affect one eye initially. Typically the first part of the eye to be affected is the outermost aspect.

At the early stages, some ocular discomfort may be noticed, with some watery or mucoid ocular discharge. Redness is visible at the sclera (the white of the eye) and there may also be brown pigment. White patches can develop which are made up of inflammatory cells, and these then turn pink as they become invaded with blood vessels, and may later turn dark brown. The normally pink conjunctiva or the normally clear cornea may be involved. When the third eyelid is involved, the normally black upper border becomes patchy pink.



Before treatment



6 weeks into treatment



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How is pannus diagnosed?

Diagnosis is made by your vet from the classical signs of the disease. Sometimes, in order to confirm this diagnosis and rule out other possibilities, your vet will take a small snip biopsy or surface scraping of the area and submit this to the laboratory for analysis.

What is the treatment for pannus?

On-going treatment of pannus over the life of the animal is usually required as a cure does not exist. When started early in the course of disease, medical therapy is usually successful at controlling the condition. Much of the redness and some of the pigment may be resolved. When severe scarring is present, surgery is occasionally required.

Medical treatment:

Medical treatment is very likely to be required for life. While temporary remissions can occur, the condition can relapse severely.

- Cyclosporin ointment (Optimmune) or drops are used twice daily on the eyes and they act to halt the inappropriate immune response and reduce the redness and pigment being deposited. This treatment is often used long-term, and occasionally the treatment is reduced to once daily or every other day when the disease is well controlled.
- Steroid drops are used on the eye to control the inflammation, and the frequency will be decided depending on the severity of the condition. Again, these will be reduced once the eye is responding to treatment.
- Cyclosporin and steroid drops can be used in combination when required.

Surgical treatment:

When medication is failing to clear the corneas sufficiently, in certain cases an operation may be recommended called a superficial keratectomy. It is useful where vision is being affected by the darkness of the corneas. In this procedure, the outermost superficial layer of the cornea is peeled away, usually exposing clear cornea underneath, through which the animal can see. Of course, the underlying problem is still present and this condition will still need on-going treatment.

Additional treatment:

When sunlight is a contributing factor, it is advised that owners provide shade for their dogs and avoid walking them during daylight hours when ultraviolet light is at its greatest. Protective goggles have been developed for dogs which will reduce the exposure of the eyes to light. These 'Doggles' are surprisingly well tolerated. More information is available on their web-site: www.doggles.com