What is Pannus?

Pannus, or chronic superficial keratitis, is a condition of ongoing inflammation of the cornea (the surface of the eye). Pannus begins as a greyish haze. Gradually blood vessels and pigmented cells move into the normally transparent cornea. As the inflammatory changes spread across the cornea, vision is affected. The condition gradually worsens and usually affects both eyes.

Pannus appears to be caused by an inappropriate response of the immune system. It occurs more frequently and is harder to control in dogs that live at high altitudes and/or are exposed to increased levels of ultraviolet radiation.

How is Pannus inherited?

Pannus is inherited, however the mode of inheritance is unknown.

What breeds are affected by Pannus?

This condition is seen most often in purebred and cross-bred Greyhounds and also occurs in the Belgian sheepdog, German Sheppard’s, border collie, dachshund, and the Siberian husky. This is a disorder primarily of middle-aged dogs (4 to 7 years) and there is an increased incidence in dogs that live at high altitudes and/or are exposed to increased levels of ultraviolet radiation.

What does Pannus mean for your greyhound?

If untreated, the blood vessels and inflammatory cells will spread over your dog’s normally transparent cornea, gradually darkening and scarring it, and causing visual impairment. This can occur slowly over months or years, or it can occur rapidly to involve the whole cornea within a few months. The condition does not appear to be painful.

Lifelong treatment is required to control this disorder (see below). Usually pannus can be well-controlled. Sometimes lesions will worsen in periods of environmental irritation or increased ultraviolet exposure, or if medication is given irregularly.

Greyhounds treated in accordance with GRNSW protocols may continue to race.

How is Pannus diagnosed?

Diagnosis is made based on the signalment (breed and history) and the typical changes in your dog’s cornea.

For the Veterinarian

You will see bilateral lesions consisting of vascularisation, pigmentation, or a combination - usually starting in the temporal or inferiortemporal quadrant and progressing centrally. Atypical pannus may affect the nictitating membrane without affecting the cornea. The leading edge of the nictitans is depigmented and the palpebral surface is red and thickened. Treatment is similar to that for typical CSK.

For racing Greyhounds in NSW treatment with Prednefrin Forte eye drops is the only approved treatment regime.

How is Pannus treated?

Usually pannus can be well-controlled. However treatment must be lifelong and consistent or the lesions will return and worsen.

The goal of treatment is to prevent vision loss, or to return as much vision as possible if there is loss. This is done with the use of anti-inflammatory drops in the eye. Drugs used alone or in combination include corticosteroids and cyclosporin A. Your veterinarian will make specific treatment recommendations based on the severity of the changes to your dog’s eyes, and the response to therapy. Usually therapy begins with 4 treatments a day. As the size of the area affected decreases, treatments will be decreased to the lowest frequency that controls the condition.

Once effective treatment is established, your veterinarian will evaluate any changes once or twice a year, or if you notice a worsening of the condition as may occur in periods of environmental irritation or increased ultraviolet exposure.

GRNSW rules permit application of one drop of prednisolone forte eye drops to each eye, up to three times per day, which will keep excretion levels below the acceptable level.

The exemption extended includes only greyhounds treated with Prednefrin Forte eye drops as described above and with the above dosage regime as a maximum.

The use of any other substance or the presence of excessive levels of prednisolone and/or its metabolites in a urine sample taken from a Pannus registered greyhound may result in breaches of the prohibited substance rules.

Breeding advice

It is recommended that affected dogs should not be used for breeding.