Common diseases of the eye

Eye disease in horses is fairly common and we strongly advise a rapid veterinary examination for any horse showing signs of ocular disease or pain.

**Clinical signs** can include:

- Discharge from the eye
- Discolouration of the eye (corneal oedema)
- Swelling of the eyelids
- Partially closed to fully closed eye
- Drooping eyelashes (image 2)

**What could it be?**

This is a very good question! There are a number of differential diagnosis, including (but not limited to):

- Corneal ulceration
- Uveitis
- Keratitis
- Conjunctivitis
- Foreign body (eg, hay or grass seed)

Each of these conditions is usually treatable though prompt recognition of clinical signs and examination by a vet is necessary to prevent potential further damage to the eye, vision loss and ocular pain.

**The examination**

The vet will examine the eye using an ophthalmoscope (image 3) and may place dye (fluorescein) in the eye to highlight the presence or absence of corneal ulceration (image 5 overleaf). Fluorescein is an orange dye that turns green when applied to the eye and will adhere to the cornea if an ulcer is present. Some eye conditions can be extremely painful and it is not uncommon for horses to be very stressed and unwilling to allow their eye to be touched or examined. If this is the case, the vet may need to sedate your horse and place local anaesthetic on the eye itself or inject local anaesthetic around the nerves that supply the eyelids (image 4) to allow the eye to be examined.

The vet will also ask for a detailed clinical history and it is important that you tell the vet the duration of the clinical signs, whether they have worsened and whether you have applied any products (eg, eye drops) to the eye. Certain eye drops can make certain eye conditions worse (eg, steroid drops can worsen corneal ulceration) so it is very important that...
Corneal ulceration
Corneal ulcers can appear and progress very rapidly and are usually very painful. Diagnosis involves placing fluorescein dye in the eye and treatment is usually a 5-7 day course of antibiotic eye drops (corneal ulcers are not caused by bacteria but bacteria within the eye can prevent ulcers from healing) alongside oral anti-inflammatory drugs.

Uveitis
Uveitis means inflammation of the uvea, one of the layers of the eye. Uveitis in horses can be a single episode that can occur secondary to other eye issues (e.g., corneal ulceration), or it can be primary uveitis, which is not completely understood yet. Treatment is usually a course of oral anti-inflammatory drugs and steroid eye drops. Uveitis can become chronic and recur at regular intervals, a syndrome called equine recurrent uveitis (ERU). With every new episode of uveitis, more damage is done to the eye and long-term consequences of ERU include iris damage, cataracts, glaucoma, and retinal detachment. Recurrent uveitis is the leading cause of blindness in horses and is a very common cause of chronic ocular pain. Image 6 shows a horse with chronic uveitis, with a very dense cataract and a ragged edge to the iris.

Keratitis
Technically, keratitis just means inflammation of the cornea. Corneal ulceration, for example, is a type of ulcerative keratitis. However, we often use “keratitis” as an umbrella term to describe a number of other types of corneal disease. Infectious keratitis can be seen in the UK, due to Equine viral, bacterial or fungal causes. Immune-mediated keratitis and Chronic deep keratitis may also be considered and can present with quite dramatic corneal pathology in the absence of obvious ocular pain (image 7). Treatment of these conditions varies depending on the suspected origin.

Conjunctivitis
Conjunctivitis is inflammation of the conjunctiva (the pink tissues of the eyelids) and is fairly common in summer when there are lots of flies bothering our horses! Treatment usually involves a 5-7 day course of eye drops and judicious application of fly masks!

Foreign bodies
Although it may appear as if your horse has something stuck in their eye if they present with a closed eye and lots of discharge, foreign bodies are actually quite rare in horses. However, any foreign body in the eye can cause serious trauma and risk loss of vision (and potentially loss of the eye) and warrant immediate veterinary attention.