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Prepurchase Examinations: Don't Forget the Eyes

Clean legs? Check. Healthy heart? Check. Strong back? Check. But before you sign the papers for your new horse, don't forget to have your veterinarian look the horse in the eye.

"An important yet commonly overlooked portion of the prepurchase is the ocular examination," explained Nicole Scherrer, DVM, an ophthalmology resident at the University of Pennsylvania School of Veterinary Medicine New Bolton Center, in Kennett Square.

At the 2013 American Association of Equine Practitioners' Convention, held Dec. 7-11 in Nashville, Tenn., Scherrer reviewed how to perform the ocular portion of a prepurchase examination.

"It is important for veterinarians to be able to recognize lesions that may affect vision or function of the horse," she relayed. Such problems include:

- Eyelid tumors;
- Globe size abnormalities;
- Exophthalmos (the eye bulging out of the orbit) or enophthalmos (the eye sinking into the orbit);
- Corneal edema (swelling),
- Corneal opacities;
- Aqueous flare (inflammation within the front chamber of the eye);
- Hyphema (blood in the eye) or hypopyon (pus in the eye);
- Iris synechia (the iris adheres to the cornea);
- Cataracts;
- Vitreous opacities (opacities in the jellylike substance behind the lens);
- Chorioretinal scars (scars in the layer between the retina and sclera that furnishes the blood supply); and
- Retinal detachment.

Scherrer recommended veterinarians follow a step-by-step diagnostic approach to ensure they cover all ocular bases. She suggested the following steps:

Step 1: Examine Facial Symmetry "The initial part of the examination should include evaluation of the globe and facial symmetry," she said. Asymmetries could indicate issues that could negatively impact the horse's future. She also recommended taking a close look at the horse's face to check for signs that the horse's eyes have been or are draining.

Step 2: Palpation "Palpation can be used to investigate any asymmetry noted and to characterize the ability of the globe to move in a normal way," Scherrer said. She also encouraged veterinarians to ensure the horse has a third eyelid—lack of such a structure could indicate the horse had neoplasia in the past. "There are multiple published reports of squamous cell carcinoma (SCC) metastasis months to years after third eyelid removal," she said. "A potential buyer should be made aware of this."

Step 3: Check Vision "To determine if the horse is visual (if he is able to see), it is important to note how it reacts to its surroundings," Scherrer explained. "However, this can be difficult to interpret because many horses adapt well to loss of vision and continue to perform well despite a loss of vision, especially if vision loss is chronic."

Step 4: Check Pupillary Light Reflexes Next, Scherrer recommended checking the horse's pupillary size and light reflexes. Poor reflexes can be seen in cases of past or present inflammation, or nerve or retinal disease.

Step 5: Evaluate the Eyelids and Conjunctiva Scherrer said the eyelids and conjunctiva (the same delicate membrane that lines the eyelids) are common spots tumors (such as sarcoids and SCC) develop. "Horses are quite prone to eyelid lacerations and if these are not repaired correctly they can result in margin irregularities that can cause recurrent corneal ulceration in the future," she said.

Step 6: Examine the Cornea and Anterior Chamber Corneal opacities could be associated with conditions such as keratitis (corneal inflammation) or uveitis (inflammation of the uvea), and could interfere with horses' vision if they're large enough. Additionally, aqueous flare created by cells in the anterior chamber (the chamber located between the cornea and iris) is a characteristic sign of uveitis. "It is important to determine if abnormalities are active or are likely to become active in the future," she cautioned.

Step 7: Check the Lens "Pharmacologic dilation of the pupil is not typically part of the prepurchase examination, but without it the lens cannot be viewed in its entirety," Scherrer explained, as some conditions are easier to identify when the pupil is dilated. Cataracts, for instance, have the potential to reduce horses' vision, but can't be completely evaluated without a dilated pupil, she explained.

Step 8: Evaluate the Fundus The fundus, or the back of the eye, can also reveal abnormalities such as retinal detachment, optic nerve atrophy, and chorioretinitis. Chorioretinitis, Scherrer said, can be associated with episodes of uveitis in some cases.

Based on the results of the ophthalmic exam, the veterinarian can inform the buyer a) if any eye abnormalities are present, and b) if those abnormalities could pose a problem in the horse's future.

Take-Home Message

"The ophthalmic portion of the prepurchase examination is frequently overlooked, but its importance should not be underrated," Scherrer concluded. "Chronic ocular disease can result in temporary or permanent loss of use and frustration for the owner. On the other hand, it is important that normal variants not be interpreted as lesions of clinical significance."