



Equine Newsletter

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SARCOIDS (Elizabeth Harries, BVSc, MRCVS)

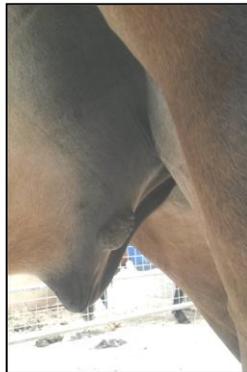
Sarcoids are the most common skin tumour found in horses and donkeys. Although very common, they vary greatly in size, appearance and aggressiveness.

Microscopically, sarcoids are made up of skin cells, meaning that they are restricted to this area. They do not spread to other organs e.g. liver, bone etc. as some other tumours do. Once present, some will remain the same for many years and may even resolve by themselves but the vast majority will require treatment.

Sarcoids can occur anywhere on the body but in the UK equine population are most commonly found on the face, scrotum/sheath, groin and armpit areas. These are typically areas of thin skin which sweat and are prone to trauma – girth rubs etc. It is also these areas where flies are most attracted to and this is thought to play a role in their spread.



Facial sarcoid



Nodular Sheath sarcoid

Types of Sarcoids

There are 6 types of sarcoids and it is important to determine the type present to ensure the best treatment is selected.

1. Occult

These are flat, usually fairly circular and hairless lesions. They are most commonly found on the body and rarely on the limbs. They can be difficult to diagnose, especially in their early stages as they can be mistaken for ringworm or rub marks. If irritated, occult sarcoids have the potential to rapidly change type to a more aggressive form of sarcoid.

2. Verrucous

These sarcoids look wart like in appearance and are grey and scaly with thickened skin. They can most commonly be seen in the armpits and on the face. They may have a ring of occult tissue around them and can often be found in clusters.

3. Nodular

Nodular sarcoids can appear anywhere on the body but are most commonly found in the armpit or on the inside of the thigh. They tend to vary greatly in size and can be attached or loose in the skin. If allowed to grow to a large size then they will often ulcerate the skin and bleed.

4. Fibroblastic

Fibroblastic sarcoids commonly appear as bleeding, fleshy masses, often on a stalk. They look very similar to granulation tissue “proud flesh” and can sometimes manifest at the site of a wound, especially on the limbs of the horse.

5. Malignant

Thankfully these are the rarest type, they are very aggressive. They can rapidly spread over a wide area of the horses’ body and will normally appear like a large bundle of nodular like lesions.

6. Mixed

This description is used to describe a combination of sarcoid types present in one area.

Diagnosis

If you suspect your horse has a sarcoid **ask a vet to examine it as soon as possible**; do not wait for it to get better as the likelihood is it will not. Realistically, prognosis of treatment for most sarcoids is about 50% although some may be higher. It is important to use the gold standard treatment first as the chances of a favourable outcome decrease with subsequent treatments.

Diagnosis is usually based on characteristic features. Previously, it used to be common practice to sample the lesions via biopsy however this is now avoided. Disturbance of a sarcoid is likely to aggravate it and can often result in its further spread so lesions are best left alone.

Treatment

There are numerous treatments available for sarcoids. The important thing to remember is that sarcoids are prone to recur and that the most successful attempt to treat is the first. Choice of treatment depends very much on the type and number of sarcoids present, their location and financial considerations. No matter what treatment option is decided upon, success is variable and costs can be high.



Nodular Sarcoid mid treatment

Conventional surgical removal

It is sometimes possible to remove a sarcoid by simply cutting around it. This is easily done if there is a solitary and small tumour and it is in an area with enough skin to close over the deficit. **However, up to 50% of sarcoids will re grow subsequently if treated this way.**

Ligature removal

This method can sometimes be used to remove the bulk of some sarcoids, especially in those with a short stalk or neck. This is done by fixing a tight ligature or rubber ring which cuts off the blood supply to the tumour and causes it to fall off. This can be a useful method for short term control of large sarcoids, especially those on the inside of upper limbs. This technique will usually cause some localised swelling but this will subside once the sarcoid falls off.

Freezing (cryosurgery)

Liquid nitrogen or similar may be used to freeze away the sarcoid, usually after it has been debulked by surgical methods. This has better success than just surgical removal. However, it often results in the development of patches of white hair due to damage of the hair follicles.

BCG vaccine

This is a method usually reserved for eyelid sarcoids. The same vaccine is used to protect against human *Tuberculosis* and is aimed at stimulating an immune response to trigger the body to respond and destroy the sarcoid tissue. Response to this treatment can be slow, and injections often need to be repeated. In rare cases, anaphylactic shock can occur and horses should be given anti-inflammatory drugs prior to treatment.

Chemotherapy

This is probably the most widely used method of treating sarcoids and can be highly effective. Specially prepared creams or an injection attack the abnormal cells in the sarcoid but they also attack normal tissue surrounding it so must be used with great care. Both cream and injection will cause local inflammation and scarring is variable, depending on the size and location of the tumours.

Other treatments include laser therapy and the placement of radio active wires into the sarcoid lesion.

Purchasing a horse with a sarcoid

If a horse for purchase is found to have a sarcoid then careful considerations must be made. If the sarcoid is in a region where the horse's purpose may be affected e.g. around the saddle region in a ridden horse or near the udder in a broodmare then the value of the animal may be affected. You should also take into consideration the implications of having to treat a sarcoid.

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Navicular disease

by Elizabeth Harries, BVSc MRCVS

Navicular disease is a chronic lameness caused by inflammation or degeneration of the navicular bone; a small bone located in the horses hoof.. Rather than being an actual disease, it is more a syndrome of abnormalities often referred to as palmar foot pain as well as navicular disease.

Causes and predisposing factors

There is no one particular cause for navicular disease. Inflammation and injury of the surrounding tissues or issues with the navicular bone itself can result in typical navicular associated lameness. Due to higher prevalence in active competition horses it is thought that repetitive stress may lead to degeneration of the navicular bone. Other possible contributing factors may include:

- Breed: although seen in all breeds it is most commonly seen in quarter horses, thoroughbreds and warmbloods.
- Conformation: Poor hoof conformation including underrun, sheared and contracted heels, mismatched hoof angles and disproportionately small feet may be contributing factors.
- Age: Affected horses are usually between the ages of 7 and 14.

Anatomy of the navicular bone

The navicular bone is a small flat structure found at the back of the coffin joint. It sits behind the pedal bone and attaches to it via a ligament called the impar ligament. Attachment to the pastern joint is by suspensory ligaments. The deep digital flexor tendon runs over the base of the navicular bone and acts as a pulley to flex the foot. The tendon also encompasses a pocket of fluid, called the navicular bursa which acts as a cushion to the base of the foot.

Recognizing navicular disease

Typically, navicular disease affects both front feet although often one foot is worse than the other meaning that lameness typically switches from one leg to the other. Generally, on a circle the inside leg will be lame. The affected limb will often land toe first and they

may stand with the worst foot “pointing” in front of the other. Lameness can wax and wane but will on the whole get progressively worse.

Diagnosis of navicular disease

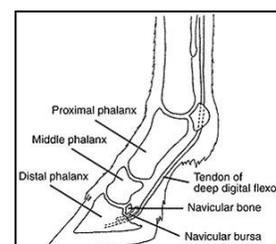
Diagnosis of disease requires a combination of tests.. The first step in work up is usually a selection of flexion tests and nerve blocks performed by your vet – a nerve block anaesthetising the foot should render the horse sound if navicular disease is present. Then, imaging should be used to assess changes in the navicular bone. X-Ray remains the modality of choice with in the first opinion practice, changes seen usually being degeneration of the caudal (back) part of the bone with visible cyst like lesions and possible evidence of mineralization of the suspensory and/or impar ligaments. MRI at referral centres can provide more conclusive diagnosis. Generally, these changes along with the clinical history is sufficient to provide a diagnosis of navicular disease.

Treatment

Treatment options are varied and often need adapting for individual cases depending on response to therapy. Due to its chronic nature, often cases do not recover 100%, and managing the condition becomes the important measure.

Predisposing conformational factors should be corrected as much as possible, usually with corrective shoeing to lift and provide heel support.

Medical treatment is usually in the form of anti-inflammatory drugs and along with correct shoeing can aid and support horses with the disease to continue with a working life although as disease progresses workload may need to be reduced. Surgery to sever the palmar digital nerves so that nerve supply to the heel is desensitised is usually only considered as a last resort as surgery is not without risk.



Common Poisonings Part 1 (Trees + Hedges)

By Sarah Mosley, BVSc, MRCVS

We are now in the high risk period again for poisonings such as sycamore + oak as the leaves will start falling and blustery weather conditions will return! Poisoning is frequently hard to diagnose and treat and can often cause fatalities, hence prevention is the key to keeping your horse safe. Below is some information on 6 common poisonous trees and hedges, next month's issue will focus on poisonous plants and shrubs.

Sycamore trees

Autumn is recognised as a peak time for cases of atypical myopathy which is thought to be caused by the toxin hypoglycin A which is found in sycamore seeds and to a lesser extent the leaves. Toxicity results in muscle damage, particularly effecting the locomotor, breathing, oesophageal and cardiac muscles. Signs to look out for are depression, weakness, reluctance to walk, choke, problems breathing and red/brown urine which contains the pigment myoglobin from damaged muscles. The chances of survival are 50:50 at best, intense fluid therapy and pain relief is required if a case is suspected, as well as vitamins B1, B2 and cartinine to support the function of muscle cells and vitamins C and E to act as anti-oxidants. Prevention is essential, it is paramount to regularly check fields for sycamore leaves and seeds, fence off areas where they are found and provide extra forage or reduce stocking density/turnout time when grazing is tight.



Oak trees

Unlike most poisons trees and plants, acorns are actually palatable to horses and some horses are attracted to them. The leaves and branches are also toxic, containing tannic and gallic acids which damage the gastrointestinal system and kidneys. Ingestion is sometimes noticed by the presence of acorn remnants in manure. If caught quickly charcoal can be given to reduce toxin absorption and IV fluids given to help flush out the toxins. Management of fallen acorns is essential, the easiest way to do this is to fence off or graze away from oak trees in autumn, especially in stormy weather.

Yew trees

These are very common in gardens and all parts of the tree are extremely poisonous. It contains taxine alkaloids which are cardiotoxic. As little as 100g is the lethal dose for a 500kg horse, causing a depressed heart rate and function which leads to convulsions, collapse and sudden death. This occurs less than 24 hours after ingestion and cases can even be found with the leaves the clinical signs.



Laburnum

This is easily recognised by its hanging yellow flowers. All parts are poisonous containing a quindizidine alkaloid called cystine that causes diarrhoea, increased salivation, a loss of co-ordination, colic, dilated pupils and in severe cases convulsions. Treatment is limited to supportive efforts mainly through intravenous fluids but is often unrewarding.



Maple

The toxic substance that the leaves contain is unknown but it damages red blood cells so they can not carry oxygen. Dry and wilted leaves are toxic for four weeks after falling from the tree and interestingly fresh leaves are harmless. Signs occur a few hours after ingestion and are a result of all body systems being damaged due to the break down of red blood cells and lack of oxygen. If treatment is instigated before clinical signs develop, the prognosis can be good, however once damage had begun, death usually prevails.



Laurel hedges

Again commonly found in gardens adjoined to fields where horses graze. Their leaves are thick and rubbery and clusters of white or pink flares are present when in bloom. They contain hydrogen cyanide which combines with haemoglobin and oxygen to prevent the body's cells being able to take up the oxygen. Signs preceding death are weakness, problems breathing and a change in heart rate. Providing oxygen and artificial ventilation is the best treatment possible to help a horse survive an intoxication.



In next month's issue will be information on poisoning from the ingestion of ragwort, foxgloves, rhododendron, deadly nightshade, hemlock, bracken and St. Johns Wort.