Sarcoids

Equine sarcoids are the most common tumours seen and account for approximately nine out of every ten skin tumours seen in horses. They are non-malignant (i.e. they do not spread throughout the body) but do grow larger and often spread locally. Their presence can cause irritation, interference with tack and loss of value to the affected horse. If knocked or rubbed their surface will bleed, and fly worry and local infection commonly occur.

What do sarcoids look like?

Sarcoids can occur just about anywhere on the body but are most commonly found on the head, (especially around the eyes), the underneath of the abdomen and sheath, chest, ears and lower limbs. Single tumours or a number of sarcoids may occur in one area or over many parts of the body.

There are different types of sarcoid and they can vary quite widely in appearance. Flat (sessile) sarcoids appear as round to oval, flat areas of roughened hairless, irregular skin. The skin feels slightly thickened. Fibroblastic sarcoids are irregularly round, raised, firm lumps. They are usually smooth and hairless at least over part of their surface but smaller ones are sometimes covered with normal-looking skin. If the surface becomes damaged, or often after normal growth, the tumour will ulcerate and bleed, leading to scab formation. Verrucous sarcoids appear wart-like with an irregular surface. A horse may have different types of sarcoids at the same time and mixed-types also occur. Sarcoids can grow to become very large (over 8-10 centimetres), although most remain smaller than this.

Sarcoids can be similar in appearance to other skin tumours (e.g. fibromas, mast cell tumours and non-pigmented melanomas) and it is necessary to submit a sample (biopsy) or the whole tumour to a laboratory for analysis for a precise diagnosis to be made.

Why do sarcoids occur?

There is strong evidence to support the view that sarcoids are initiated by a virus infection. This theory explains how sarcoids first appear and how they spread. Some genetic families appear particularly susceptible to developing sarcoids more readily than others, but there is no difference in susceptibility between horses of different coat colours. Some breeds may be more susceptible than others.

It is not uncommon for ‘proud flesh’ i.e. the exuberant granulation tissue that often develops in healing equine wounds, to transform into sarcoids.

What treatments are available?

There are several options for treatment of sarcoids and more than one treatment may be used at the same time. The important thing to remember is that sarcoids have a great tendency to recur either at the site of removal or nearby. The choice of treatment will depend upon several factors:-

- The number and size of the sarcoids present
- The part of the horse affected
- The facilities and drugs available
- Financial considerations
What methods of treatment are there?

**Surgical removal**
If is often possible to remove a sarcoid by simply cutting around it after desensitization with local anaesthetic and stitching the resulting wound. This is easily done if there is only a solitary tumour or there are only a small number present and there is enough free skin left afterwards to close the wound. Tiny sarcoiids may be removed, leaving a small open wound to heal by granulation. Approximately 50% of sarcoiids treated this way re-grow subsequently.

**Applying ligatures**
It is possible to remove the bulk of some sarcoiids, especially those with a short stalk or neck, by fixing a tight ligature around its base. The ligature cuts off the tumour’s blood supply and it dies away or falls off usually 10 days to two weeks later. This method is useful for short-term control of relatively large sarcoiids on the inside of the hind limbs or abdomen but does not usually give long-term resolution of the problem. The most common system used is the application of small strong rubber rings (elastorator rings) using a special applicator. There may be some local swelling after their application but this usually subsides once the sarcoid drops off.

**Freezing (Cryosurgery)**
The sarcoid may be frozen by using liquid nitrogen or another appropriate freezing agent, which causes the tissue to die away. If the sarcoid is large, most of it can be cut away first (de-bulking), leaving only the base to be frozen. This method is more effective at preventing recurrence than surgery alone, but often results in the development of patches of white hair due to damage to hair follicles.

**Laser surgery**
Where available, surgical laser treatment allows the bulk of the sarcoid to be removed and the base eroded either in one step or the base eroded after de-bulking the main mass. There is minimal bleeding but because the tissues are burnt, but healing can be slow. Scars will form but hair colour is usually unaffected.

**Radioactive beads or wires**
This highly specialised technique is not widely used but can be effective particularly for eyelid sarcoiids where it is necessary to try to save the eyelid. The radioactive treatment shrinks the tumour and may disfigure the eyelid.

**BCG vaccine**
BCG is a vaccine produced from the bacterium *Mycobacterium bovis* for immunization against tuberculosis. It may be injected into the sarcoid tumour(s), often with useful results. Several injections over several weeks or months may be required. This treatment is aimed at provoking an immune reaction from the horse’s body to destroy or reject the sarcoid tissue. It is most commonly used for eyelid tumours because, if effective, it allows the eyelid to be saved. A response may not be seen for several weeks after first injection. There is often initial swelling and there may be skin damage following injections and rarely, death has been reported following an anaphylactic shock reaction to the vaccine. Horses to be treated with BCG should receive anti-inflammatory drugs prior to each treatment.

**Chemotherapy**
Specially-prepared cytotoxic (tissue killing) creams have been widely used to treat sarcoid tumours. These attack the abnormal cells in the sarcoid and are often highly effective, but can also damage healthy tissues. They must be used with great care, especially over bony areas or blood vessels and nerves. They can be used on smaller and flat sarcoiids or larger ones after surgical de-bulking. The cream can only be supplied to and used by a veterinary surgeon. Another cytotoxic drug (Cisplatin) is available but must be injected into a sarcoid to be effective. This is another highly specialised technique as dose and pattern of injections varies with size and shape of the sarcoid. Both techniques cause local inflammation and scarring is variable, depending on the size and location of the sarcoiids.
No matter which treatment option is chosen it can take many months to remove some sarcoids and the effect might not be permanent. Treatment may need to be repeated or changed if new sarcoids appear. Such treatment can be costly.

Should I buy a horse with sarcoids?

Sarcoids affect the potential value of a horse or pony in two main ways:

1. If they interfere with tack or are knocked during exercise, they reduce the ability of that horse or pony to perform. If a mare has sarcoids between her back legs or on her udder they might be knocked or sucked when the foal nurses.
2. They may be expensive to remove or be treated if prolonged or repeated treatments are required.

These considerations must be considered against the value of the horse and its other qualities or potentials.

Conclusion

Sarcoids are much more significant than ‘just a few lumps’ and can be difficult and costly to deal with. If you think your horse or pony may have one or more sarcoids, you should ask your veterinary surgeon for advice. Best results are achieved when a diagnosis is made and appropriate treatment is started early. Scarring is less obvious when the sarcoids are removed or treated when they are small.

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