Proceedings of the 12th International Congress of the World Equine Veterinary Association

WEVA

November 2 - 5, 2011
Hyderabad, India

Reprinted in IVIS with the Permission of WEVA Organizers
The diagnosis and treatment of the equine sarcoid

D C Knottenbelt  
*Philip Leverhulme Equine Hospital, University of Liverpool, Leahurst, Neston Wirral UK CH64 7TE*  
knotty@liv.ac.uk

The equine sarcoid is by far the most prevalent equine skin tumour. (Broström, 1995) It occurs worldwide and with the notable exception of some specific breeds (such as the Lipizzaner) and genetic lines that are partially or totally resistant, the condition can affect all ages, types and colours of horse. It also affects other equidae including the mule, donkey and zebra.

The clinical appearance of the tumours correlates closely with the histological features. Pathologically the sarcoid should be regarded as a fibroblast tumour. The various types can be usually be recognised clinically by observation and confirmation of the diagnosis although biopsy is widely feared as a potential cause of exacerbation. The gross and microscopic pathological features are easily recognised and widely understood. Involvement of the epidermis is a feature of most types but is not an obligatory feature of the tumours. Remarkably from a histologic perspective the fibroblasts that comprise the sarcoid are not usually significantly “tumorous”. They do have subtle changes that skilled pathologists can identify but high mitotic indices and a lack of cellular differentiation are not prominent features of the disease.

Six distinct clinical entities which are noticeably different can be recognized (Knottenbelt, 2005). Although each of these forms is commonly identifiable it is important to recognise that the “less severe” forms can rapidly progress to the more aggressive types particularly if they are traumatized in any way. Furthermore, the specific types may not be clearly identifiable in every case. It is however, patently obvious that even the mildest forms are indeed sarcoid - *in vitro* cell cultures derived from these are typical and indistinguishable from those taken from the more aggressive lesions. These factors suggest that both cell and host factors are responsible in combination for the variety of forms.

Treatment should follow as soon after diagnosis as possible. Each sarcoid type has its own requirements and each treatment in turn has its own limitations (Diehl, Vingerhoets and Stornetta D, 1987). The selection of an appropriate treatment requires the application of evidence based principles. There are however, very few extensive studies that have been properly constructed to test the efficacy of any of the treatments that are used regularly. Limitations for any particular method relate to the sarcoid itself (its type, extent, and location), its history (previous treatment attempts) and to the compliance of the horse and the owner (financial and managemental). Some treatments are simply not feasible under certain circumstances.
The fact that there are well over 40 published or anecdotally reported treatments for the condition indicates that no one treatment is universally applicable; it is probably true to say that most (probably not all!) of the reported treatments have successes and failure. However, there are individual claims for 100% efficacy in some of the methods. Perhaps unsurprisingly such claims are treated with scepticism and in the event that a 100% efficacy was a genuine figure, we would surely have no need to worry any more about the disease! The therapeutic challenges afforded by the sarcoi will inevitably require considerable thought and care. Small superficial lesions will clearly have better prospects in general than large severe invasive masses, but other factors such as location may be equally significant. The removal of a small nodule from the upper eyelid can be a bigger challenge in the long term than the removal of a large fibroblastic pedunculated mass from the belly wall.

There will be a financial commitment at some point in the large majority of cases. There is a strong likelihood that prolonged or repeated treatments will be required.

Failures are always likely in any method. Whatever is said or done about the sarcoi, the owner must be informed of the options and the limitations of these options in every case. The disease should be referred to as "cancer" when talking to owners so that they better understand the complications of treatment and the overall implications of the disease. The prognosis is always very guarded and owners must be aware of the limitations, cost and likely/possible outcome of the various treatment options before embarking upon any treatment. A diagnosis of equine sarcoi has a very serious effect on the value of the horse and the likely enjoyment that the owner will get out of it.

We are all looking for a “sure-fire” treatment for cancers of all sorts but this is a long way off yet for the equine sarcoi. No case of sarcoi can be considered to be free of the disease even following apparently successful treatment. Recurrences may take up to 25 years to occur and of course the affected horse remains liable to further sarcoi development regardless of the methods used to cure them (excepting of course the self-curing cases which appear to remain solidly immune).

REFERENCES:

