

Equine Sarcoids

Sarcoids are a benign form of tumor found on the skin of horses. They are commonly associated with bovine *papillomavirus* which causes warts in cattle. There is some evidence to suggest that flies play a role in their transmission to horses. Quarter Horses are more susceptible than other horses but all breeds, ages, and genders of horses are at risk of developing sarcoids. There is also some evidence of genetic predisposition to development of sarcoids.

Sarcoids most commonly develop on the legs, head, and underside of the neck or belly but can occur anywhere on a horse's body. They also frequently appear in areas of scarring, or wound sites. They are categorized by their appearance. Different types of sarcoid tend to exhibit different growth rates and some are more locally aggressive than others.

Occult sarcoids are fairly flat hairless areas which are often roughly circular. They may have some thickened skin and occasionally have nodules in them. Occult sarcoids tend to grow slowly. They may develop into verrucous sarcoids or, if traumatized, may develop rapidly into the fibroblastic form.

Verrucous sarcoids look like clusters of warts with scaly thickened skin. They can vary in size from less than a dime to fairly large extensive lesions. A flat area of thickened hairless skin often surrounds them. Like the occult sarcoids, these tend to be slow growing but may become aggressive if traumatized.

Nodular sarcoids develop underneath the skin surface. They are spherical tumors with greatly varying sizes. The skin covering them appears normal but can become thin. If the skin becomes damaged, these can also quickly develop into fibroblastic sarcoids.

Fibroblastic sarcoids look like proud flesh. The tissue appears raw and will often have a clear yellow discharge. Any of the aforementioned tumors can develop into this type if they are traumatized. Fibroblastic sarcoids also tend to appear at wound or surgical incision sites. These tumors tend to be more rapid growing and more invasive of the local tissues but do not metastasize (spread to other areas of the body via the blood or lymph system).

Mixed sarcoids contain components of the occult, verrucous, and fibroblastic types.

Malevolent sarcoids tend to develop from other types of sarcoid that have been repeatedly traumatized or had multiple attempts at surgical removal. Some malevolent sarcoids develop spontaneously, however. This type can be very aggressive and spread along tissue planes or through cords of lymphatics.

Diagnosis of equine sarcoid is commonly made by their physical appearance. Biopsy will frequently allow for definitive diagnosis, but trauma to the tissue frequently leads to development of a more aggressive type of tumor. If biopsy is attempted, it generally involves removal and submission of the entire tumor. Unfortunately, it is often difficult to determine the underlying extent of the tumor so recurrence is common in surgically excised sarcoids. Consult your veterinarian for diagnostic options if you suspect your horse has sarcoids.

Due to the high incidence of recurrence and the tendency for sarcoids to transform into a more aggressive form after injury, the slow growing types of sarcoid are frequently best left alone. They should be monitored closely for evidence of transformation into a more aggressive type of tumor. If your horse has a sarcoid that has a sudden increase in growth rate or a sudden

change in appearance, you should contact your veterinarian as soon as possible.

Surgical treatment options include ligation (tying a tight suture around the base of a pendulous sarcoid to cut off the blood supply), surgical removal, cryosurgery (freezing the tumor with liquid nitrogen), hyperthermia (treatment with heat), electrocautery, laser surgery, or any combination of the above. The last four methods on the list generally require multiple treatments. No one treatment is 100% successful and recurrence is common as is development into a more aggressive tumor.

Medical options include topical applications of chemotherapeutic agents such as 5-fluorouracil, intralesional injection of chemotherapeutic agents such as cisplatin, radiation therapy, or topical treatment using immunotherapy such as BCG or XXTERRA. Success rates with some of the above medical therapies have been quite encouraging; however, all of these treatment modalities can have unwanted side effects. Many of the treatments can be quite expensive. Discuss treatment options thoroughly with your veterinarian so that she or he can help you make the best decision for you and your horse.

Contact Brandon Equine Medical Center at 813-643-7177 or email lkuebelbeck@brandonequine.com with any questions regarding this topic.