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#### Sarcoids

## Clinical Signs

The appearance of sarcoids varies greatly. A classification system, consisting of six subtypes, is used to help characterize them. This includes; occult, nodular, verrucose, fibroblastic, mixed, or malevolent. It is even possible for a sarcoid to grow and transform from one subtype into a different subtype. The sarcoid in the image posted yesterday most closely resembled the verrucose form. Sarcoids may be found anywhere on the body but are most commonly found on the face, neck, distal limb, or ventral abdomen.

# Pathophysiology

There is a strong link for the development of sarcoids with the presence of Bovine papilloma virus 1 and 2. The papilloma virus incites transformation of the horse's skin tissue at a local site resulting in sarcoid formation. In some cases, trauma seems to incite sarcoid formation as well. This virus is transmitted by flies from infected cattle or horses. The virus can be transmitted from cow to horse, horse to horse, from one site on a horse to another site on the same horse, or even on objects such as tack. Thus, it is not uncommon for multiple horses in a herd to be affected by sarcoids.

### Diagnosis

Definitive diagnosis is achieved by biopsy of the tumor showing fibroblastic proliferation and epidermal hyperplasia. However, biopsy is often avoided as it may aggravate the tumor resulting in it transforming into a more aggressive subtype. Thus, the diagnosis of sarcoid is often inferred based upon its physical appearance and location on the body.

#### Treatment

Treatment options are quite dependent on the nature of the sarcoid, as the more that sarcoids are manipulated, the more aggressive they can become. For small sarcoids that are not bothering the horse, it is generally acceptable to monitor the sarcoid. Some will even regress without treatment. For larger, aggressive tumors, a multimodal treatment strategy is important. This generally includes surgical excision or laser ablation combined with intralesional/topical chemotherapy (cisplatin, 5-FU) or radiation. Other adjunctive therapies include cryotherapy (freezing the tissue) or immunotherapy. Because sarcoids can present with such a varied appearance and history, it is best to consult with your veterinarian to come up with the best treatment plan for your horse.

# **Prognosis**

No treatment option is guaranteed to be 100% effective for sarcoids, however a multimodal approach for more advanced sarcoids can be effective at preventing progression in many cases. Overall, the prognosis of occult and verrucous sarcoids is more favorable than the more advanced subtypes such as mixed or malevolent. Occult and verrucous often remain quiet with little growth. In most cases, sarcoids are rarely life threatening and simply a cosmetic defect, however, close monitoring is always important.