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# SARCOIDS

**Sarcoids are the most common skin tumour of horses, reported worldwide. These skin tumours are most commonly locally invasive, more frequently presenting as a raised, hairless, mass within the skin. They are more commonly found on the face (muzzle, ears, around eyes), lower limbs, neck and lower abdomen. There are six described types of sarcoid:**

1. **OCCULT:** flat and slow growing
2. **VERRUCOUS:** roughened surface and slow growing
3. **NODULAR FIBROBLASTIC:** fast growing from nodule without break in skin
4. **ULCERATIVE FIBROBLASTIC:** fast growing irregular shaped with raw bleeding surfaces
5. **MALEVOLENT:** very irregular, fast growing, highly metastatic, spread locally and throughout body
6. **MIXED:** combination of different types

A large study of horses presenting to a University hospital found that quarter horses and related breeds were twice as likely to develop sarcoids as thoroughbreds. The cause of sarcoids has been debated through the years with gene mutation in some breeds, spontaneous mutation, fly vectors, and the bovine papilloma virus have all been considered as causes. Although found less frequently in thoroughbreds, the presence of



sarcoids in racehorses have the potential to cause considerable loss to training time and reduce career length. Sarcoids in racehorses cause secondary effects such as a nodular sarcoids found on the eye and head, growing rapidly and compromise vision or the eye itself; or a sarcoid on the leg becoming ulcerated with minor interference leading to a horse being unsuitable for racing.

Multiple treatment options exist for sarcoids in the horse. Surgical excision by itself is not typically recommended with success rates ranging from 15-82%. Due to the nature of the tumour extending into the adjacent tissue, margins of at least 12mm are recommended. In order to improve success rates; laser ablation is recommended. Laser ablation acts to prevent spread of sarcoid cells into the surrounding tissues and reduces regrowth, however even with laser excision success rates only reach 82%. In order to further improve success rates, surgeons act to combine therapies in almost all cases. Adjunctive treatments used commonly include cryotherapy (freezing with liquid nitrogen), implanted radiotherapy (radiation), immunotherapy, intralésional chemotherapy, and topical chemotherapy. Of these therapies, intra-lesion chemotherapy using cisplatin when combined with excision using a laser, has had some of the most favourable rates of success with around 90% of sarcoids treated having resolution. Other alternative treatment options such as electrochemotherapy and direct beam radiation therapy have been used with good success however these are highly dependent on specialised equipment.

Sarcoids are the most commonly seen but are often a very challenging skin tumour to overcome. Multiple treatment options exist with most surgeons recommending a combination of treatments for the best results.