

Tumours and Tumour-like Growths in Horses – Neoplastic Masses

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Lumps and bumps that occur on a horse's skin can be divided into neoplastic (tumour) and non-neoplastic (inflammatory, parasitic-induced) masses. The location of the lump, its outward appearance, the age of the horse and the coat colour often help in the differentiation of the mass. Confirmation, however, often requires histological (microscopic) examination, since many cutaneous masses appear clinically similar. Three common tumours affect the skin of horses - sarcoids, squamous cell carcinomas and melanomas.

SARCOIDS

The equine sarcoid (**Figure 1**) is a locally aggressive, fibroblastic skin tumour, which can appear as a flat or cauliflower-like growth either singularly or as multiple growths, usually in the young horse. It is the most common dermatological neoplasia reported in horses. It is widely accepted that the bovine papillomavirus (BPV) types 1 and 2 are associated with the pathogenesis of sarcoids ⁽¹⁾. Papillomaviruses are also associated with warts in humans. Sarcoids usually appear in younger horses and may spontaneously disappear. The distribution of lesions and the epidemiology of sarcoids strongly suggest that flies are significant as vectors ^(2,3).

There is no consistently effective therapy and therefore veterinarians use a variety of treatments, including: ligation, surgical excision, cryosurgery, laser surgery, topical application of cytotoxic compounds (e.g., zinc chloride, 5FU cream (called Efudex in Canada)) or intra-lesional injections of cisplatin, immunomodulation (e.g., EqStim, BCG) and autogenous polymerized tumour particles (vaccine made from a sarcoid). Commonly, when one or a few of the sarcoids are removed, an immunization response occurs and the remaining sarcoids disappear.



Figure 1. Sarcoid on the belly.

SQUAMOUS CELL CARCINOMAS

Squamous cell carcinomas (**Figure 2**) can be aggressive tumours that occur around the eye and the penis in adult horses. They are the most common penile and preputial neoplasm in the horse ⁽⁴⁾. Smegma, the waxy exudate found around the penis and sheath is suggested as being the most likely carcinogen ⁽⁵⁾. These tumours may metastasize to regional lymph nodes if not treated aggressively. Therefore, any change in skin pigmentation around the eye, penis or sheath should be immediately examined by a veterinarian. Treatment options include surgical excision, cryosurgery or laser surgery. Reoccurrence after treatment can be expected in 17-25% of cases ⁽⁴⁾.



Figure 2. Squamous cell carcinoma on the penis of a gelding.

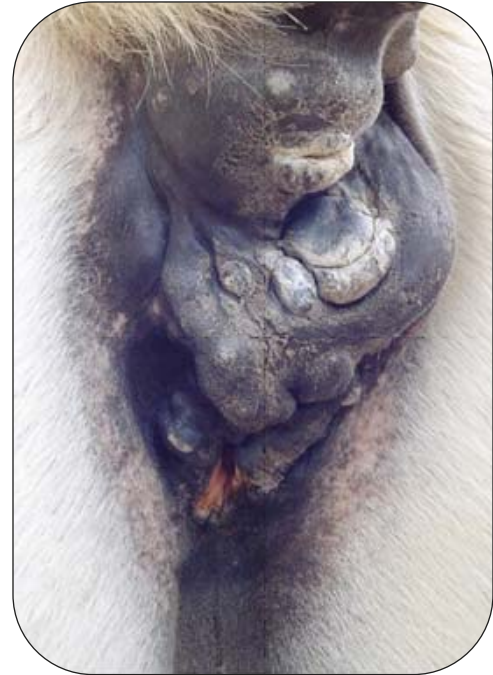


Figure 3. Melanoma of the tail and perineal area of a mare.

MELANOMAS

For the Percheron breed and horses that are white or dappled in colour, the most common neoplasia is the melanoma or melanocytic tumour (**Figure 3**). It is not a case of whether a grey horse will develop a melanoma(s) but, rather, when and where will it develop. Melanomas are not a single entity but a complexity of equine proliferative cutaneous melanocytic lesions with at least three different forms, including: melanocytic nevi (melanocytoma), dermal melanomata (if there are multiple, confluent dermal melanomas, this is referred to as dermal melanomatosis) and anaplastic malignant melanomata^(1, 6). These tumours commonly appear under the tail, perineum and external genitalia, as well as the parotid area (behind the jaw). They are usually slow-growing, locally-invasive tumours with the potential to metastasize internally. Surgical excision, cryosurgery or laser surgery can be used to remove those melanomas that are bothersome to the horse and owner. Cimetidine, a histamine H₂-receptor antagonist that is used in humans to inhibit the production of acid in the stomach, has been used to slow the growth of melanomas with mixed results.

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