

Skin Diseases Refresher

Papillomatosis (viral warts)

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Disease profile

Equine papillomatosis presents in 3 major syndromes, 'grass warts', pastern papilloma and pinnal acanthosis (auralplaques). Caused by the equine papilloma virus. It most commonly affects young horses, age <4 years. Usually resolve spontaneously eventually. Predilection sites determined by the mode of transmission of the infective agent.



Fig 1: The typical appearance of 'grass warts' on the nose and muzzle of a yearling.



Fig 2: These slightly flatter warts are often linked to *Simulium* spp. (black-fly) spread and, therefore, occur around the eye and on the prepuce in the male.

Clinical signs

'Grass warts'

These commonly occur around the muzzle and on the face of young horses. The predilection sites are around the commissures of the lip (**Fig 1**) and the side of the face (**Fig 2**). They do occasionally develop on other thin-skinned areas such as the inguinal and perineal skin (**Fig 3**).

Occasionally horses are severely affected across much of the body surface (**Fig 4**). Similarly, very occasionally, horses are born with congenital wart growths usually on the head (**Fig 5**).



Fig 3: The warts typical of *Simulium* fly spread here on the sheath of a colt.



Fig 4: Massive encrustations of warts can occur, and are usually best left to resolve spontaneously.



Fig 5: A congenital wart. Because these warts are present while the animal is in utero, the body's immune-surveillance system will not recognise the wart virus as foreign, and the wart will therefore not be rejected with time.



Fig 7: A linear lesion that developed on the neck in a 4-year-old horse, which was shown to be a papilloma following biopsy.



Fig 6: 'Pastern' warts can reach the proportions shown in this horse. Once again these will usually resolve spontaneously with time and aggressive treatment usually causes more problems than the lesion.



Fig 8: The flat, plaque-like lesions seen in many cases of pinnal acanthosis. Note the similarity to the lesions seen in Figures 2 and 3, typical of spread by *Simulium* spp. flies.

Pastern papilloma

Pastern warts develop on the back of the pasterns and are often larger than the ones that grow on the muzzle (**Fig 6**). Secondary infections can be a problem if the surface of the papilloma becomes traumatised. Even more sporadically, chains and clusters of warts can develop in other sites such as the side of the neck (**Fig 7**).

Pinnal acanthosis

This condition is thought to be related to the equine papillomatosis virus within the pinna of the ear. These are often termed 'aural plaques'. They can range in size from small raised depigmented areas (**Fig 8**) to large clusters of white grape like masses (**Fig 9**).



Fig 9: The more extensive, grape-like lesions commonly seen in cases of pinnal acanthosis and best left untreated.

Investigations

- 1) Clinical recognition is usually sufficient.
- 2) Biopsy, but only in atypical cases, and should be avoided in pinnal lesions.

Differential diagnosis

- Verrucose sarcoid.
- Molluscum contagiosum (rare).

Confirmation of diagnosis

Diagnosis can be confirmed by punch biopsy of the lesions, but the appearance of the typical lesion on the muzzle in a horse age >2 years should be pathognomonic for the condition. Biopsy is only really required if the horse is older than normal, the lesions are in an unusual site (**Fig 7**), or there is a possibility of more serious condition, such as sarcoid formation.

As a note of caution, biopsy of any potential sarcoid can trigger rapid development of malignancy, and if in any doubt, excisional biopsy or other forms of treatment for sarcoid should be considered in these cases.

Management

Wart infections are self-limiting, and as in man, immunity always develops with age and the warts resolve spontaneously. In the horse this usually occurs by age 3 years.

Warts around the muzzle that are interfering with tack can be topically killed by the application of a podophyllum containing cream designed for controlling plantar warts in man (Posalfilin)¹. This is only really practical where there are relatively few warts. The skin surface around the warts is first treated with white soft paraffin to ensure no blistering of the skin takes place. The wart-killing ointment is then applied topically to the head of each wart using a matchstick and wearing disposable gloves. The treatment is repeated in 3 days. The treated warts will become desiccated and crumble away over the next 2 weeks.

Usually because of the immunological involvement in wart growths, treating the most easily approachable warts will often result in mass resolution of other untreated lesions at the same time, presumably because of immunostimulation caused by the presence of the viral genome within the dead warts.

Autogenous vaccination is possible but takes time and is expensive. Whilst it is tempting to consider autogenous vaccination in the more severe cases of wart development covering much of the body surface, the sudden death and sloughing of large areas of warts following vaccination can cause other problems and these horses are often best left to resolve with time if secondary infection and the unsightliness of the horse can be managed.

Manufacturer's address

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