



MUD FEVER (PASTERN DERMATITIS)

Also known as cracked heels and grease heel. The correct term for this group of dermatological conditions is pastern dermatitis and refers to a clinical description rather than an actual diagnosis. Pastern dermatitis is most common in feathered breeds but can affect any horse or pony.

Signs

Pastern dermatitis is most commonly found on the heel and pastern area but may extend up the leg as far as the knee or hock. Lesions usually start at the heel and then progress round the sides of the pastern before extending up the leg. Initially, there may be some hair loss and drycrusts. This can develop into reddened, swollen skin with hair loss and either clear yellow weeping (serous exudation) or pus discharge. Both these discharges harden into crusts which are extremely difficult to remove and harbour bacteria underneath them. The leg may become very swollen and lameness may be present. Any number of legs may be affected and often only white patches have issues.

Causes

Pastern dermatitis needs a predisposing factor such as constant moisture or repetitive trauma to become established. Conditions that may cause pastern dermatitis are:

- Muddy fields with constantly wet and muddy legs (hence the name mud fever).
- Sandy fields or sand schools (constant trauma from sand).
- Bedding which is causing trauma either physically (e.g. straw, wood chips) or chemically (treated or dirty bedding). If these conditions are sustained then opportunistic pathogens will invade the area and cause the group of conditions known as pastern dermatitis.

Some common pathogens involved in pastern dermatitis are:

- *Dermatophilus congolensis*.
- *Staphylococcus* species.
- *Chorioptes* species (mites).
- Dermatophytosis (ringworm).

There are some other less common conditions which cause pastern dermatitis. Pastern leukocytoclastic vasculitis is a poorly understood condition which usually affects just the outside and inside (lateral and medial aspects) of the leg. This is often diagnosed only when all other treatment has failed. Another condition is photosensitisation in which only the white patches of the lower legs are affected and the pastern dermatitis will stop very clearly where the white patches meet areas of darker hair. This can indicate liver damage.

Diagnosis

Early diagnosis and treatment of pastern dermatitis is crucial to avoid costly and drawn out treatment. Once pastern dermatitis has become well established it can be extremely difficult to work out which pathogen was involved in the first place and therefore what the best treatment should be. If pastern dermatitis doesn't respond to treatment within a few days and starts to

spread or become painful then it is time to get veterinary attention. The vet may take some skin scrapings and tape samples to look at under a microscope. Bacterial and fungal infections can often be identified this way. Samples for bacterial or fungal culture may be taken to be sent off to a laboratory. In cases where photosensitisation is suspected, a blood sample may be taken to check liver function and for other metabolic diseases.

Treatment and prevention

As soon as you notice pastern dermatitis it is important to try to remove the predisposing cause. Therefore affected horses should be kept in during wet conditions or should have their bedding changed if this is likely to be the cause. If a dry environment is not possible (which it usually isn't with horses kept out during the winter) the heels and pasterns should be protected using special boots/bandages or barrier creams. Care must be taken with boots and bandages as poorly fitting ones will cause more damage than they prevent and can sometimes cause severe injury. Always keep pasterns clipped, especially in feathered breeds. Mild cases should be washed twice daily with hibiscrub shampoo for 7-10 days and then taper the frequency. Barrier creams such as udder cream can be useful.

If veterinary attention is required, following a thorough examination the vet will usually clip the affected area very closely, clean it and then soak to remove any crusts. Sometimes creams such as flamazine and a hydrocolloid gel such as intrasite are mixed and smeared all over the affected areas and then the legs are bandaged with a layer of cling film followed by a supportive dressing for 24 hours. This is very effective at removing stubborn crust. Sedation is sometimes required for crust removal as it can be painful and horses with pastern dermatitis often become very sensitive about having their legs touched. Once this has been done it is important to keep the area clean and dry and to prevent more crusts forming. In severe cases, it can take a few visits and some weeks before much improvement is seen.

Sometimes the use of medicated creams such as flamazine cream, other antibiotic creams or steroid creams are used by vets depending on the cause. Occasionally systemic (by mouth or injection) antibiotics are used if there is swelling and pain. In some cases low dose systemic corticosteroids are also used. Conditions such as pastern leukocytoclasticvasculitis and hepatogenous photosensitisation need special treatment.

It is important to try to keep the legs of horses and ponies prone to pastern dermatitis clean and dry as much as possible. As soon as any signs appear, try treating if they are mild but if no improvement is seen or if the condition worsens, seek veterinary attention as soon as possible. Once pastern dermatitis has become established it can be difficult and expensive to treat it effectively.

