



LIPHOOK
EQUINE HOSPITAL

Mud Fever (Pastern Dermatitis)

Mud fever is not a single disease but a collection of diseases that cause inflammation of the skin of the lower limbs. These diseases may occur singly but commonly occur in combination.



Mud Fever

Mud fever has a number of synonyms including greasy heel, cracked heels, pastern dermatitis, grapes or scratches. Pastern dermatitis is arguably the most correct term. Mud fever may be seen in horses of any type, age or gender but is common in draft and feathered breeds, Arabs and animals with white socks.

What causes Mud Fever?

There are a number of different causes of the condition that may occur singly or in combination.

- Bacterial infection (often *Staphylococcus*) is present in the majority of cases
- Rain-scald (infection with *Dermatophilus* bacteria)
- Ringworm (fungal infection), fungi, yeasts
- Mange (*Chorioptes* mite infestation)
- Contact with irritant chemicals
- Photosensitisation/Sunburn associated with liver disease or certain plants
- Immune-mediated disease of the blood vessels

Clinical Signs

The lower limbs below and around the fetlocks are typically affected. The backs of the hind pasterns are often the worst affected because of the skin folds that provide a moist environment where secretions may accumulate. The clinical signs depend upon severity and vary from horse to horse but often include:

- Production of flaky, greasy material is particularly common in feathered breeds
- Thickening and scaling of the skin
- Loss of hair
- Reddening of the skin
- Swelling
- Itching resulting in self-trauma and bleeding
- Purulent discharge (yellow, thick and often foul smelling)
- Development of nodules ("grapes") of inflamed tissue in particularly severe and chronic cases



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Diagnosis

Early diagnosis of the causal factors is helpful. Once the lesions become chronic (longstanding) it is frequently impossible to determine the exact diagnosis. Diagnostic methods may include hair plucks and skin scrapes to look for parasites, swabs to culture for bacteria or fungi, biopsies to look for characteristic pathological changes and blood samples to look for underlying disease.

Treatment

In order to be able to heal the infectious agents need to be eliminated and the cycle of inflammation broken.

General treatments and advice:

- Removal from wet, muddy, unhygienic conditions
- Treatment should be targeted and restricted to only the medications that are truly necessary. Application of multiple medications risks further irritation of the skin
- In feathered breeds **clipping** is critical to curing the problem although it is often undesirable on cosmetic grounds. If feathers are not removed the condition is generally only managed rather than cured
- Cleansing with antibacterials. Even if not primarily infected by bacteria, lesions will often become infected. Removal of the crust and application of antibacterial medications such as chlorhexidine is important in eliminating bacterial infection. Removal of the crust is often painful and sedation may be required to enable it to be removed

Specific Treatments:

- Antiparasitic treatments for mites such as topically applied fipronil, or ivermectin, or injecting doramectin
- Antifungal treatments such as miconazole shampoo
- Corticosteroid creams, injections or tablets for suspected immune-mediated disease or to reduce severe inflammatory responses. This is particularly important if there is inflammation of the blood vessels (vasculitis)
- Topical, injectable or oral antibiotics
- Application of sun-creams
- Treatment for liver disease if photosensitisation is the underlying cause

Even with aggressive therapy **recurrence is common** and inevitable if management changes are not made to prevent further skin damage. Treatment can be time consuming and protracted but with commitment and changes in management the condition can usually be resolved. The major difficulty for most owners comes in avoiding muddy and wet conditions and recurrence of the condition is therefore common.



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Disease Control and Prevention

The biggest risk factor for the disease is chronic wetting of the skin as often occurs in wet paddocks over winter. For treatment to have any chance of being effective the skin has to be kept **dry and clean**. In horses that are predisposed to the condition it will quickly recur if hygiene is poor. This may necessitate changing or improving paddocks where horses are overwintered, avoiding overgrazed pasture that is poached, or keeping horses housed during wet periods. Regular removal of mud is also important – ideally by brushing, but if washing has to be done it should be followed by thorough drying of the skin. Clipping of the lower limbs enables the skin to be kept cleaner and drier and reduces the accumulation of grease from the skin or discharges from damaged areas. The temptation to apply a plethora of different creams should be avoided as they may cause further irritation of the skin. Petroleum based barrier creams should also be used with caution as they are equally capable of retaining moisture and infection as they are of protecting against it.

Summary of Key learning Points

- Mud fever is a collection of diseases that results in damage to the skin of the lower limbs
- The biggest risk factor is constant wetting of the skin
- There are multiple possible causes but bacterial infection is commonly central to the condition
- Appearance depends upon severity but typically there is crusting and bleeding of the affected skin with the hair becoming matted with exudate
- Treatment depends on the underlying cause but removal of crust, cleansing with antibacterial shampoos and drying are important
- Clipping is usually required to effect complete cure
- Steps should be taken to avoid repeated wetting of the skin once the condition is resolved



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