LIPHOOK
EQUINE HOSPITAL

Sweet Itch

Insect bite hypersensitivity (IBH) or “sweet itch” as it is commonly known is caused by an allergy to the bites of flies or midges.

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What causes Sweet Itch?

Horses can be irritated by the bites of many types of flies (*e.g.* horse flies, stable flies, horn flies, black flies and mosquitoes), however allergies are most likely to develop to one of the species of Culicoides midges. Proteins within the saliva of midges cause a localised **allergic reaction** within the skin.

Who is most commonly affected?

The disease is generally noticed from four years of age onwards and tends to become more severe as horses get older. There is good evidence that some horses have a genetic susceptibility *i.e.* susceptibility to the disease may be passed from one generation to the next and the offspring of an affected mare or stallion are more likely to be affected than the offspring of unaffected animals. Icelandic ponies are particularly badly affected with Shire Horses, Welsh and Shetland Ponies, Arabians, Connemaras, Friesians, Warmbloods and Quarter Horses also recognised to be at increased risk.

Clinical signs

IBH is characterised by persistent itching and it is the **most common cause of itching** in horses. Some horses may become irritable, restless and in extreme cases even lose weight. Clinical signs are seen from Spring to Autumn and are worst in hot humid weather and around dawn and dusk -when midges are most active. Different species of midges bite at different sites. Horses are most commonly affected along their mane and around the base of the tail but may extend to involve the face, ears, neck, belly and shoulders.

Affected horses will kick and bite at themselves and rub on objects in their environment resulting in loss of hair over affected areas, thickening of the skin and breaks in the skin, which can become infected. Hair is frequently lost from the mane and the base of the tail and sometimes other areas resulting in the ‘’rat tail’’ and ‘’buzzed-off’’ mane that is classically associated with sweet itch.

Diagnosis

The diagnosis is often apparent from the clinical signs. However, other allergies can have a very similar appearance to sweet itch and further tests may be necessary to determine whether it is insects or other environmental factors that are triggering the allergy. The best method of confirming the diagnosis is by injection of midge extracts into the skin to see whether there is a reaction. This is generally done alongside a panel of other substances to which the horse could be allergic, so-called intra-dermal skin testing. Numerous blood tests are marketed for detecting allergies in horses but there is little evidence to support their use and most veterinary dermatologists consider them to be unreliable.

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Treatment

As with all diseases, prevention is far better than cure and this is particularly true of sweet itch as treatment is often of limited value or comes with the risk of side-effects. Means of prevention are outlined below. Where disease cannot be prevented then there are numerous treatment options which are variably effective:

- Topical anti-itch shampoos that contain oatmeal, anti-histamines or local anaesthetics can be effective in reducing itching
- Application of ice or cold water may temporarily relieve itching
- Omega 6/3 fatty acids *e.g.* evening primrose oil may help to reduce itching
- Anti-histamines are rarely effective
- De-sensitisation with injections of midge extracts may be effective
- A bacterial extract designed to modify the immune system was trialled recently in the UK and was thought to be of benefit in some horses
- Glucocorticoids ("steroids") *e.g.* dexamethasone or prednisolone, are usually effective but are associated with a risk (albeit small) of inducing laminitis and are not desirable for long-term therapy.

Disease Control and Prevention

The following measures may all be useful to prevent midges from biting:

- Stabling especially around dawn and dusk
- Placing ultrafine (60 squares/inch) netting over stable doors and windows, (regular mosquito nets are not fine enough)
- Spraying housing and screens with insecticides
- Timer operated insecticidal sprays
- Installation of fans within stables (midges are very weak fliers)
- Stabling/turn-out more than half a mile from static water where midges breed
- Stabling/turn-out away from woods, trees and high hedges where midges congregate
- Stabling/turn-out in wind-swept, open locations
- Use fly hoods and body sheets
- Application of insect repellents. Pyrethroid or permethrin-containing products are generally the most effective. DEET is effective but can cause soreness in some horses. Avon skin-so-soft is a less noxious alternative that can be effective. Beware numerous other products that are often ineffective. Cattle ear tags containing pyrethroids can be effective

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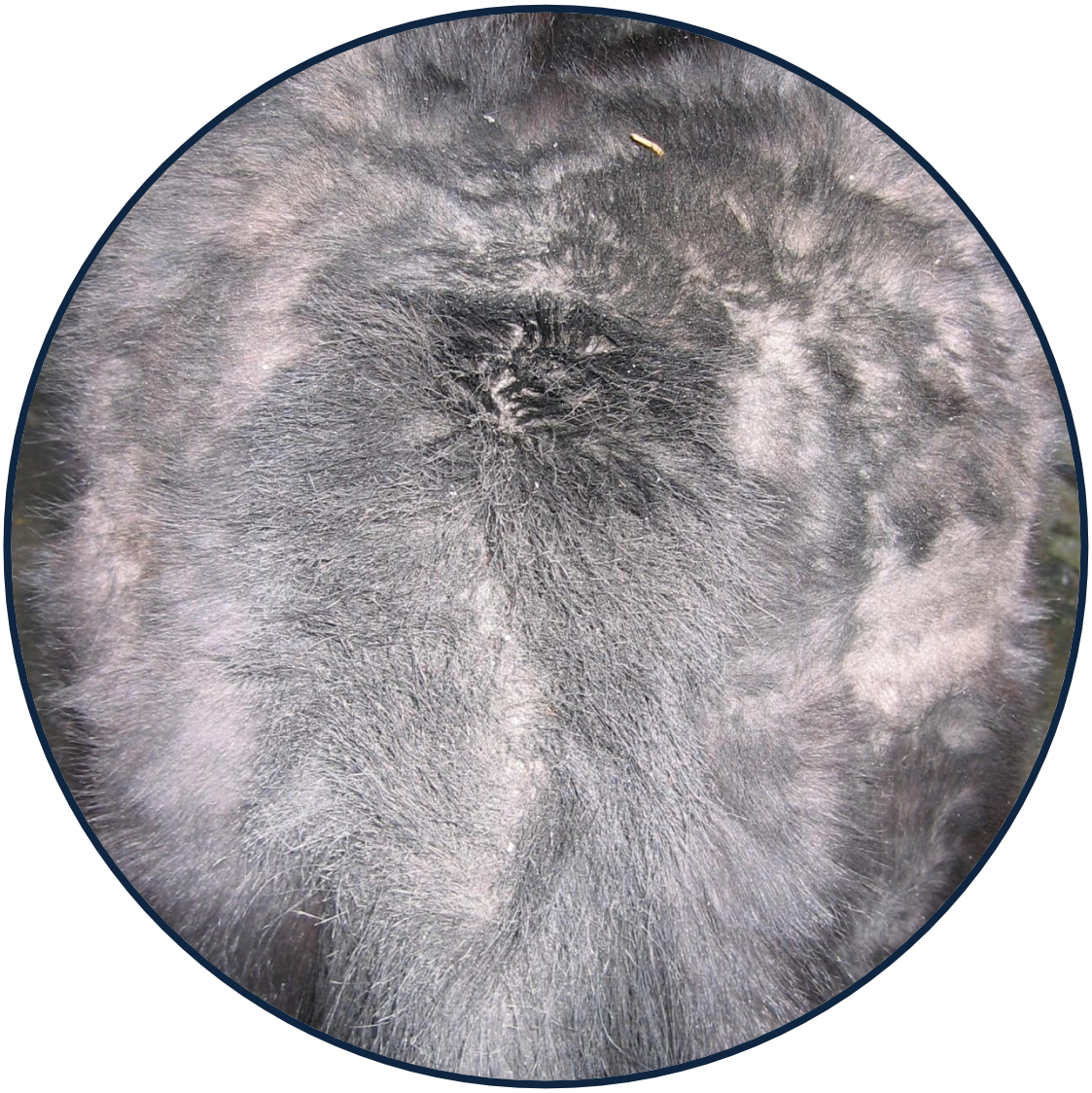
Welfare implications

This disease causes immense distress in severely affected animals and is a major welfare concern. In a very small minority of horses euthanasia is considered to be a more humane alternative. In refractory cases where welfare is compromised relocation to a different geographical location with an exposed site and high winds may provide an alternative to euthanasia.

The key to management of IBH is **preventing midges biting** using physical barriers, chemical repellents and housing horses away from midge habitats. Numerous treatments have been used to reduce itching but none are universally effective.



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