

SKIN CONDITIONS THIRD SERIES: Equine Ectoparasites

Insects

Lice infestation is rather common in the horse, especially during winter or early spring and in sick, old or otherwise debilitated animals. Affected animals often carry a long hair coat, making the lice and the eggs more difficult to find, even though the adult lice are rather big. Also, these horses frequently have a secondary seborrhea (scaling/flaking), potentially camouflaging the lice from easy detection with the naked eye. Pruritus (itchiness) can vary from absent to severe, and predominately affects the neck, shoulders, mane, tail, and, less often, the legs. A poor coat quality with multi-focal, patchy areas of alopecia (hairless areas), scales, and even excoriations (scratching wounds) can be seen as a sequel to lice infestation. Severe infestation can cause weight loss and, if sucking lice, also anemia (blood loss).

Two species of lice can be seen in horses: the biting (*Damalinia equi*, mallophaga) and sucking (*Hematopinus asini*, anoplura) louse. *Damalinia equi* is the smallest, 1 to 2 mm, with a rounded head and transverse stripes on the abdomen. They are most easily found in small numbers on forehead, neck, and dorso-lateral trunk. *Hematopinus asini* is bigger (3-3.5 mm) and has a long, pointed head with piercing mouthparts. They are more easy to find due to the size and because they usually are numerous, especially in the mane, base of tail, on the fetlocks, and upper and inner thighs. As the louse hangs on to a hair-shaft when feeding, do not expect to find lice in alopecic (hairless) areas. When a horse is exercised, becoming warm and sweaty, the lice climb out toward the tip of the hairs and are more easily found.

It is useful to identify the species, as treatment protocol differs for each louse; that is, sucking lice respond favorably to ivermectin 200 ug/kg PO, twice at a 14-day interval, whereas biting lice do not. Other than ivermectin, most antiparasitic treatments are effective for both species, such as pyrethroids, permethrin, selenium sulfide, imidacloprid, phoxim, and fipronil. It is important to also treat in-contact animals, as asymptomatic carriers exist. Survival off the host is usually less than a week, although they can persist up to 3 weeks under favorable conditions. We have found that UltraBoss® pour-on has been very effective; it has a high amount of permethrin and is labeled for horses.

Mites

Choriotptes infestation is not uncommon and is becoming an increasing problem. The classic picture with severe pruritus affecting the legs, causing the horse to rub and kick, is certainly seen, but there are also a number of cases where pruritus is minimal or absent. Likewise, the clinical picture can vary from severe crusting and proliferative lower limb dermatitis to completely asymptomatic carriers. The crusting can be rather impressive and is often accompanied by seborrhea with dander and scales. The lesions may also extend to the trunk, neck, and face.

For treatment success, clipping is advised before applying the antiparasitic agent (fipronil, permethrin, hoxim, or selenium sulfide). Again, Ultraboss® treatment has been very effective.



Figure 5 Crusty lesions on the leg of a Friesian horse with *Choriotptes* infestation.

Ivermectin reduces mite numbers, but is less effective. Remember to treat the entire body as the mites can migrate to areas such as the neck, trunk, and face. It is important to also treat in-contact horses, even if they are asymptomatic, and to decontaminate the environment.

Psoroptes

Infestation with *Psoroptes* is less common. Psoroptic mange causes pruritus, papules, alopecia, excoriations, oozing, and crusting. In cases affected with *P. cuniculi*, the horse can be head shy, have pruritic pinnae (ears), otitis externa (ear infection), or be “head shaker.” The mites prefer areas with thick hair (ears, mane, tail, intermandibular area) but can spread over the dorso-lateral body. Ivermectin 200 ug/kg orally, twice at a 14-day interval, is an effective treatment option. To avoid exacerbation of clinical signs, do NOT treat the ears topically as this can cause great discomfort to the horse.



Figure 6 Some horses show no pruritus and have minimal clinical lesions with chorioptic mange.



Figure 8 If the horse has lesions in the flexure area of the carpus, clipping the area and scraping the margins of the lesion is often rewarding.

Helminths

***Habronemiasis* (summer sore) is a presumed hypersensitivity reaction to the *Habronema* larvae. The larvae are deposited on moist or injured skin by the intermediate host *Musca domestica* or *Stomyxos calcitrans*. Larvae that are swallowed by the horse complete their life cycle in the stomach. Larvae that penetrate the skin can cause a local hypersensitive reaction, resulting in papules, non-healing wounds, or exuberant granulation tissue on legs, ventral abdomen, prepuce, and the medial canthus of the eye. We had a case of Flystrike on a mare at perineum this summer that had abundant granulation tissue that was very sensitive!**

Steroid treatment, topical or systemic, reduces the inflammation in the lesions. Ivermectin, 200 ug/kg orally, is recommended at three weekly intervals.

Oxyuriasis, pinworms (*Oxyuris equi*), resides in the colon and caecum. The females lay their eggs on the perineal skin. The female worm's movements and the gelatinous substance that gules the eggs to the skin are irritating and cause pruritus. The easiest way to find eggs is by tape preparations. Ivermectin treatments at 10 day intervals are effective, also remember to clean the areas the horses rub. Bleach walls of stall and possibly move horse temporarily after treatment to avoid reinfections. Routine deworming is effective.