



South Shore Equine Clinic & Diagnostic Center
151 Palmer Road
Plympton, MA 02367
Phone: (781) 585-2611 Fax: (781) 585-0611
www.ssequineclinic.com

URTICARIA (HIVES)

Horses are extremely susceptible to urticaria, or hives, compared to other domestic species. Clinically, urticaria is often viewed as minor blemishes, but can vary from temporary bumps to major, systemic or even life threatening problems. The cause and exact pathogenesis of the disease is complex and often multifactorial. Many causative factors have been identified in the horse; however elucidating the exact one in a particular case can be difficult and unrewarding. The most common causes of urticaria lesions are: drugs (especially penicillin); ingested feeds or chemicals; insect bites; inhaled pollen, mold, dust, or chemicals; excess heat or cold; exercise; or idiopathic (unidentified cause). The pathogenesis of urticaria involves exposure/inhalation, etc of one of the above, then mast cell (an inflammatory cell type) degranulation, which liberates various inflammatory mediators involved in a cascade of events. These events cause increased vascular permeability (vessel leakage), inflammation and protein leakage, and resultant wheal formation. The wheals or “hive bumps” can look any number of ways.



Clinical signs of urticaria often consist of variable sized wheals distributed locally to one area of the body, regionally, or can be generalized; and a particular horse can have recurrent bouts of this condition. Persistent and recurrent episodes may be the result of the continued exposure to the causative allergen, or failure of the body to completely rid itself of the inflammatory process. Typically, these lesions “pit” on pressure, and there is usually no pain or heat on palpation. In simple cases, the lesions will appear quickly, and resolve quickly. Pruritus (itchiness) may or may not be present. In more aggressive cases, the horse could suffer from self inflicted trauma due to severe pruritus, which is typically seen with insect bite hypersensitivity. Hair loss is usually only seen with long standing cases, where angioedema (exudative/oozing) lesions are present. Because urticaria can cause a severe hypersensitivity reaction, the horse should initially be monitored for any signs of respiratory distress (increased respiratory rate and effort), as this would constitute the need for immediate veterinary evaluation.

A definitive diagnosis is often difficult to make because of the underlying difficulty with identifying an exact cause of the hives. However, obtaining a detailed history can often help elucidate the cause over time, especially if the episodes are recurrent. The distribution / pattern of lesions can also be helpful. Lastly, response to therapy is also very useful. Unfortunately biopsy of the skin is typically unrewarding and often misleading in urticaria cases; however skin biopsies can be very helpful in terms of ruling in or out other dermatologic disease processes. Suspected “food allergies” can be diagnosed by feeding a hypoallergenic diet for 3 – 4 weeks and then challenging the horse by slowly reintroducing one feed component at a time to identify the causative factor. A positive reaction may take 2 weeks to appear, so this can be a very lengthy process. Some allergens can be detected using serum (blood) allergy testing, but the tests are not standardized or specific for horses, and





South Shore Equine Clinic & Diagnostic Center
151 Palmer Road
Plympton, MA 02367
Phone: (781) 585-2611 Fax: (781) 585-0611
www.ssequineclinic.com

therefore if the horse comes up positive to a specific allergen, it may not be relevant. Intradermal (skin) allergy testing can also be performed but the same limitations exist as for serum allergy testing, and dermatologists are divided regarding the overall usefulness of these tests. If either test is to be attempted, the horse must be held off all treatments (including corticosteroids, NSAIDs like Banamine® or Bute, and tranquilizers such as acepromazine) for at least 2 weeks.

The best treatment of urticaria is of course to eliminate the cause. This is easier said than done. Therefore, although we will tailor the treatment protocol to the specific needs of the patient, we will often begin with a tapering course of corticosteroids such as dexamethasone or prednisolone, potentially with the addition of an antihistamine as well. Because corticosteroids have been anecdotally associated with laminitis, it is important to monitor your horse for any signs of foot pain while being treated with steroids. If the lesions persist or recur after 4-6 weeks of therapy, then the case should be reevaluated, and perhaps intradermal and/or serum allergy testing be performed.

In summary, although urticaria remains a complex and often recurrent disease process, we will work with you and your horse to hopefully diagnose and then tailor a specific treatment regimen to ensure your horse is happy and healthy.

Intradermal Allergy Testing

