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Ticks...Ugh! (What to do!)

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I just found a tick on my horse. What should I do?

Ten years ago we rarely saw ticks on horses in this part of the country, and hardly ever encountered the associated diseases and problems that we are finding today. The climate is changing, and some of these pests are moving into our neighborhood!

The first thing to do is remove the tick, and identify it. There are many internet websites that have pictures of the various varieties of ticks, as well as 'Field Guide to Insects'. Physically remove tick by pulling it straight out, with tweezers. Try to pull it out the same way it went in, without twisting it. It is important not to crush the tick, or break the head off. If you are squeamish, you can cover in nail polish and leave it for several hours, then clean area with betadine soap and dry with alcohol. If the head breaks off, try to remove it with tweezers or apply poultice over area.

There are literally hundreds of species of ticks. The ticks that you are most likely to find are 'dog ticks.' They are large enough to be seen easily by the naked eye, and they can approach 1 centimeter in size when engorged with blood. Deer ticks are much smaller and are often overlooked. While all ticks can carry problematic diseases, the deer tick is charged with being the carrier for Lyme disease, which has become well established in this area. Ticks can be tested for disease causing bacteria at certain labs. While that can give an owner some useful information, and the opportunity to be pro-active in treating their horse, remember that the presence of the bacteria in the tick is not a 100% assurance that the animal will contract the disease.

Ticks hatch in spring as nymphs or larvae and can live up to two years in this state. As they mature into adults, they climb onto their hosts and attach to them, biting and sucking blood.

While one concern of tick infestation can be local infection and abscesses at the site of the bite, there are a number of nasty bugs that catch a ride on these insects. The tick can pick up the bacteria from another animal such as mice or deer, referred to as an intermediate host, and then transmit the disease to your horse.

Lyme Disease is caused by a bacteria called *Borrelia burgdorferi*. This disease has been commonly seen in humans, horses and dogs. In addition to the concern of Lyme disease, there are several other infections that we are concerned about including Anaplasmosis and Babesiosis. All of these diseases are carried by ticks and may have similar symptoms including fever, lethargy, exercise intolerance, change in behavior, partial anorexia, gait abnormalities and lameness, muscle soreness, swollen joints, laminitis, anemia, and generalized weakness. As you can see, the symptoms can be widely varied, so the infection can be quite difficult to diagnose. If the disease progresses or is left untreated, major damage can occur to joints or internal organs which can cause permanent disability and even death.

Specific blood tests are needed to identify and differentiate between these diseases as treatments may be different. Your veterinarian can run a 'tick panel' to identify the illness. There are two types of diagnostic tests to consider. One is the 'titer' which identifies whether the animal has antibodies to the organism. The tricky part is interpreting this test. An animal may have an 'antibody response' from vaccines, or from their own immune system, if it was strong enough to fend off the illness so the test can come back positive even if the animal does not have the disease. The second test is the 'Western Blot' which is a quantitative test. This identifies the actual response in the horse's body, but will not test positive to a vaccine response. To make things even more confusing, there are horses that can test 'positive' but do not show symptoms. The question always comes up 'to treat or not to treat'?

The latest protocol recommends the use of intravenous Oxytetracycline, followed by the oral drug, Doxycycline for at least 30 days. Immune stimulators are often considered a useful accessory and probiotics should be fed to prevent alteration of good bacteria in the gut during antibiotic therapy. One of the risks with the use of tetracycline can be chronic long-term diarrhea, so the treatment can have hazards also.

At this time, there is no vaccine that is tested and certified for use in horses for Lyme disease. We don't personally recommend using any 'off label' product, but there are owners who have used the dog vaccine. Hopefully, testing for an effective horse vaccine will be completed shortly.

Perhaps the most important part of this article is aimed at the prevention of these diseases. Good horse management includes the use of topical tick repellants. Check the labeling to make sure that your summer fly spray also repels ticks. Some horses can lose skin and hair from the 'spot on' products, however these products are quite easy to use and can be extremely effective especially on pastured horses that don't get daily grooming. Insecticide sprays around edges of paddocks, keeping grass mowed, and meticulous grooming to be on the lookout for any rashes, bugs or skin disturbances are all things that you can do to minimize risk. If you see symptoms, please don't wait. Contact your veterinarian to get a diagnosis and implement

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