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TETANUS

Tetanus is an acute and life threatening disease of mammals, which involves spasm and rigidity of the muscles caused by a bacterial toxin. Horses are more susceptible to tetanus than any other mammals.



Unlike flu, which is caused by a virus, tetanus is caused by a bacterial infection. The tetanus bacterium (*clostridium tetani*) can survive for long periods of time in the soil as a spore which is highly resistant to heat and light. The bacteria can only multiply in areas with little or no oxygen. If a horse suffers from a wound which is contaminated with the bacterium, it can multiply rapidly and produce a toxin which attacks the horse's nervous system. Deep puncture wounds (such as one caused by a nail in the foot) are ideal breeding grounds for the bacteria and represent a high tetanus risk.

The bacterial toxins eventually result in muscle spasms and once the symptoms are identified, irreversible damage may already have occurred.

Symptoms



Clinical signs usually take 5 to 10 days after the original injury to manifest, and in some cases they can take up to three weeks. The initial wound which allowed the bacteria in to the body may never even have been noticed.

Initially, affected horses show increased body temperature and mild stiffness when walking. They become tense and this gradually progresses as the muscles go in to spasm, which becomes very painful. They often develop a 'startled expression' with flaring of the nostrils, erect ears and protrusion of the third eyelid at the inner corner of both eyes. The tail is usually raised slightly and breathing becomes laboured. As the infection spreads, the horse will begin to have difficulty chewing as the masseter muscles start to spasm. They often grind their teeth and sweat due to the pain.

Horses with tetanus also have an exaggerated response to loud noises and sudden movements. They can easily become frightened and excited and may suffer violent muscle spasms. Because their muscles are so tense, they are unable to lie down and if they do go down they usually can't stand up again.

Treatment

Tetanus is an extremely serious condition and most unvaccinated horses which succumb to it will not survive. The disease is very painful for the horse and can be prolonged over several weeks so the horse's welfare must be considered before embarking on treatment. Treatment can be very expensive and often unsuccessful. Horses which do manage to survive are sometimes left with permanent damage to muscles and internal organs.

Treatment consists of giving massive doses of anti-toxin as well as pain killers, antibiotics and sedatives. Careful nursing is vital because patients will have difficulty eating and moving around. Feeding by stomach tube and intravenous fluids are sometimes required.

Prevention

Tetanus is not a contagious disease but all horses are at risk of contracting it through a wound and should be protected by vaccination. Vaccination is the only reliable way of preventing tetanus in horses and we consider it essential for all horses, ponies and donkeys to be kept up to date with vaccinations.

Current welfare legislation states that horse owners have a responsibility to protect their horse against disease whenever it is practical. Not having your horse protected against tetanus could be considered a breach of this legislation and potentially an act of negligence.

Vaccination is cheap and reliable. A primary course of two injections 4 – 6 weeks apart is followed by boosters every two years. Each vaccination costs £20.

Foals are particularly susceptible to tetanus and the best way to protect them is ensure the mare is fully vaccinated and receives a booster 4-6 weeks before she gives birth. Foals will receive immunity via the colostrum within the first few hours of life. Foals which have received inadequate colostrum or poor quality colostrum should be given a tetanus anti-toxin injection as soon as possible to give them short term protection. Foals can start their own vaccinations from 5 months of age.



Any horse which is not fully up to date with tetanus vaccinations and suffers a wound should receive a tetanus anti-toxin injection immediately; however, this is relatively expensive and is not a reliable way of preventing the disease. In many cases of tetanus, the original wound is not even noticed.

David Aldington
January 2015

Please note from 1st June 2015 it will be compulsory practice policy that all animals registered with Aldington Equine Vets must be vaccinated (a minimum of tetanus cover).