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STRANGLES

What is strangles?

Strangles is an infection caused by bacteria called *Streptococcus equi*. It is highly contagious and the infection can be spread by horse-to-horse contact or by humans, tack, drinking troughs and other environmental factors.

What should I look for?

The characteristic signs include sudden onset of fever and loss of appetite, followed by a thin watery nasal discharge which soon becomes thick and yellow. The horse may have difficulty swallowing. This is followed by swelling of the lymph nodes (glands) under the jaw and in the throat, and the horse may hold his head low with his nose poked forwards to relieve discomfort and to aid respiration. One or more abscesses form in the inflamed lymph nodes. These tend to rupture either to the outside or into the back of the throat and discharge thick yellow pus. Horses usually recover fully after natural rupture of the abscesses. You should seek veterinary help without delay. The veterinarian will help confirm the diagnosis by clinical examination and the collection of swab samples for laboratory investigation and will help you with appropriate treatment and management.

Which horses can become affected?

Strangles can occur in horses of any age but younger horses are more likely to become infected. After infection, most horses may be immune to re-infection for several years. Old or debilitated horses are at increased risk of infection or re-infection.

Can it be treated?

The bacteria that cause strangles can be killed by certain antibiotics including penicillin but there is considerable disagreement as to if or when antibiotic treatment should be given.

The problem is that when abscesses form they produce a dense fibrous capsule which means that the antibiotics circulating in the bloodstream have difficulty in reaching and killing the infecting organisms. This tends to delay resolution of the infection and there is an increased risk of infection spreading to other lymph nodes throughout the horse's body (miliary or 'bastard' strangles), which is often a fatal condition. Most clinicians who have experience with strangles outbreaks therefore prefer to let the disease take its natural course to reach resolution.



Nasal discharge

A compromise is to take temperatures daily from in-contact horses and to treat horses with a course of antibiotics from the very first sign of infection, before abscesses start developing. This may prevent the disease from manifesting but may also prevent them from producing a useful immunity, so they may develop signs in a 'second wave'. Some cases form such large abscesses that they are in danger of suffocation and then intensive antibiotic and anti-inflammatory treatment is essential to save their lives.

Recommended treatments include application of hot towels to the swollen glands to encourage abscesses to burst or to grow to a size and maturity that allows them to be safely and successfully lanced. Once open, the abscess cavities should be flushed with dilute povidone-iodine solutions and allowed to heal naturally.

Can the disease be prevented?

It is most important to understand the highly infectious nature of this organism and all that can be done to isolate cases and to prevent further spread to other horses, both on and off the immediate premises. Your veterinarian will help you set up a management protocol appropriate to your own location and circumstances.

Prevention of the disease or its spread therefore depends upon good management. New horses should be isolated for 2-3 weeks and their temperatures checked regularly. Any horse which shows suspicious signs of illness (high temperature, nasal discharge, difficulty in swallowing, swollen throat or glands) should be isolated until strangles is confirmed or ruled out by veterinary examinations and laboratory investigations. Any horse which has strangles should be immediately isolated from all other horses, if true isolation is possible. It should have its own water and feed buckets, grooming kit and tack, and no equipment used for the affected horse should be allowed near other horses. One person should look after the affected horse(s) and avoid contact with all other horses. All equipment, stables, fences, trailers, etc. should be thoroughly disinfected using a phenolic disinfectant. Once fully recovered, the affected horse can be turned out again.



Discharging strangles abscess

Unfortunately, some horses become symptom-less carriers of *Streptococcus equi*, most commonly in their guttural pouches, and can infect horses intermittently although showing no signs of infection themselves. This is probably the most important cause of infection recurring at intervals of several months after apparent clearance. Although the organism can live in cool, dark parts of the stall for over a week, it is these carriers that cause the repeated infections rather than environmental contamination. Part of the clearance process for recovered cases should therefore be the collection of deep nasopharyngeal swab and guttural pouch wash samples for laboratory investigations.

Are there long term complications of the disease?

Strangles can take an unusual course with abscesses forming deep in the body. This is often termed 'bastard strangles' and can be very difficult to treat successfully. Affected horses may show signs of colic or abscesses might discharge internally from many sites. Cases such as this lose weight and often require euthanasia on humane grounds with colic, respiratory distress or other complicating illnesses associated with peritonitis, pleuritis and/or multifocal organ damage.

The symptom-less carrier horses are a particular problem. Often these carriers only spread the infection when they are stressed, such as at the time of foaling, transporting, or routine deworming or vaccination. These carriers are a serious risk of infection to other horses and must be identified. New tests, such as Polymerase Chain Reaction (PCR) and ELISA are extremely sensitive and accurate in detecting the carrier animals.

Strangles is rarely fatal but deaths can occur. Occasionally a horse which recovers from strangles will develop a condition known as *purpura hemorrhagica*, which is due to an unusual immune reaction to the streptococcal bacteria and results in widespread damage to blood vessels, resulting in swellings of the legs and head and bruise-like patches in the mouth. Your veterinarian should be called immediately if you suspect this life-threatening condition.