STRANGLES

What is strangles?

Strangles is a highly contagious, bacterial, respiratory infection caused by *Streptococcus equi*, which affects horses, ponies and donkeys of all ages. The aim of this information sheet is to inform you of the clinical signs of strangles and how the bacteria spread between susceptible horses. It also contains information on how to control the infection and hopefully prevent it entering your yard.

Clinical signs

Infected horses quickly develop a high temperature (up to 41°C) causing them to become depressed and go off their food. In the following days the lymph nodes around the throat (sub-mandibular lymph nodes) enlarge due to abscesses forming within them. These can result in respiratory obstruction and difficulty swallowing, hence the name strangles. Although the name sounds concerning, complete respiratory obstruction does not occur. The abscesses in the lymph nodes may rupture of their own accord or occasionally need to be surgically opened.

Infected horses often develop a nasal discharge which may start clear but becomes thick with pus and often copious in amount. They frequently also develop a cough. In very rare cases, the bacteria may affect other lymph nodes in the body and cause abscesses to form throughout the horse's body. This is called "bastard" strangles and can potentially be very serious.

Diagnosis

The diagnosis is relatively straight forward in horses that develop the classical signs and is confirmed by taking a swab from the back of the horse's nasal cavity (nasopharynx) or by directly swabbing a draining abscess.

We recommend isolation of any horse that develops a thick nasal discharge until strangles has been ruled out. A blood test is available to identify if new horses entering a yard have been exposed to the infection in the past few months. However, recent exposure (within the last two weeks) will not be detected.

Transmission of the disease

Once strangles has got into a stable yard it spreads quickly between horses either by direct contact or indirectly on equipment or personnel. The bacteria are shed in nasal discharge and in pus draining from open abscesses.

The bacteria can survive in the environment for long periods (up to 8 weeks on tack and in the wood of stables) and can survive in water troughs for at least 4 weeks. Good hygiene is therefore essential in controlling the disease. The bacteria can infect the lymph nodes of a horse via aspiration into their respiratory tract.

Clinical signs develop between 3 and14 days after infection.

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Treatment

Treatment of the individual patient is primarily supportive nursing care. Your horse may be prescribed non-steroidal anti-inflammatory medication (such as equipalazone (bute) or danilon) to control their increased body temperature.

Antibiotics are not always used as they cannot easily penetrate the abscess capsule and may slow down the horse's recovery by preventing the abscesses from draining. The decision to give antibiotics depends on the stage of the infection and will be decided by the vet on an individual basis.

Applying a hot compress to the enlarged lymph nodes may be advised to encourage the abscesses to rupture, and after they have burst flushing the cavity with an antiseptic will be required until they have healed.

Control of infection

The most important aspect to limit the spread of disease is by maintaining strict hygiene and isolation of all infected horses.

Early detection of disease by closely monitoring the body temperatures of in contact animals and immediately segregating any suspected cases will significantly reduce the number of horses that come down with clinical disease.

The use of disinfectants should be used to kill the bacteria in the stable and the use of foot dips and gloves when handling infected horses is paramount. Any equipment belonging to the horse should not be shared and should be thoroughly disinfected after use, including forks and wheelbarrows used to muck out.

The premises must be isolated so that no in-contact animals leave the yard and risk spreading the disease further. No infected or in-contact animal should be released from isolation until three negative nasopharyngeal swabs have been taken at 2 week intervals. In addition, a negative strangles PCR blood result taken 2 weeks after the last possible contact with an infected horse can be used.

No horse should enter the premises in the midst of an outbreak.

Complications

Bastard Strangles: In very rare cases the infection may spread to involve lymph nodes and organs in other parts of the body causing abscesses to form internally. This condition can be fatal.

Purpura Haemorrhagica: This rare complication is characterised by red spots forming on the skin and mucous membranes (such as the gums) caused by bleeding from the small blood vessels under the skin, along with swelling (oedema) of the limbs and around the head. It occurs sporadically and is more common in younger animals. Unfortunately it is often fatal.

Chronic Carrier Status: A low number of horses can become chronic carriers of the disease after infection. These horses harbour the bacteria within their guttural pouches (part of the Eustachian tubes) often in the form of chondroids (balls of dried pus). Carrier status may be diagnosed by taking sequential nasopharyngeal swabs although this can be unreliable as these horses often only shed the bacteria during times of stress. A more reliable and therefore preferable test for carrier status is to perform an **endoscopic examination** of the guttural pouches to look for chondroids

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and to take washes for bacteriological examination. It is recommended that the guttural pouches, sinus openings and trachea are endoscopically examined and flushed for bacteriological examination after the horse has recovered from clinical disease to reduce the incidence of carrier status developing.

Prevention

All new horses entering the yard should be monitored closely and any horse that develops a nasal discharge must be isolated and swabbed immediately.

If facilities are available, new horses should ideally be kept in strict isolation for two weeks. The people involved with caring for the horses in quarantine must not move from the isolated horses to others on the establishment, without a complete change of clothing and footwear. Ideally isolated horses should be done last at each session to reduce the risk of transmission by personnel.

Vaccination can form a critical element in preventing strangles outbreaks on yards but it is not a substitute for good stable management and disease awareness.

The vaccine available is able to reduce clinical signs and the incidence of lymph node abscesses. This vaccine is intended for use in horses for which a risk of *Streptocuccus equi* infection has been clearly identified due to contact with horses from areas where this pathogen is known to be present e.g. stables with horses that travel to shows and/or competitions in such areas, or stables that obtain or have livery horses from such areas. The vaccine like the natural infection produces regularly short lived immunity and needs regular boosters. To be effective, an initial primary course needs to be given with two injections given four weeks apart. Vaccinating in the face of an outbreak is therefore not effective and may not be appropriate either. Previously vaccinated horses can be given a booster in the face of infection to help prevent disease.

Please do not hesitate to contact the equine office on 01666 826456, should you have any further queries on strangles.