

Carriers of strangles

Once recovered, most animals will eliminate *S. equi* fairly rapidly. However, approximately 10% become carriers. The bacterium usually resides in the guttural pouches and can do so for several years after the outbreak. If they are not identified, carriers can be released into a susceptible population, causing new outbreaks.

Detection of carriers and the site of carriage

Carriers can be difficult to detect and negative results from a single nasopharyngeal swab do not prove that an animal is not infected. Three consecutive negative swabs over a 2 week period tested for culture and PCR will provide strong evidence that shedding has ceased and the infection has been eliminated.

However, guttural pouch endoscopy followed by bacteriological analysis of guttural pouch washes is the preferred method for identifying carriers.

It is hoped that the new diagnostic blood test being developed at the Animal Health Trust will provide an improved means of diagnosis.

Control

Segregation of infected from uninfected animals can be an effective and important means of control. With extreme care, it may be possible to resume normal operations on uninfected parts of premises. In this event, personnel and equipment from infected areas should not be allowed into 'clean' areas.

Further information

The Horserace Betting Levy Board has Guidelines on Strangles in its Codes of Practice. These Codes are available from: Equine Grants Team, Horserace Betting Levy Board, 52 Grosvenor Gardens, London SW1W 0AU. E-mail: vet.grants@hblb.org.uk



Public Awareness Campaign

The British Horse Society and AHT have joined forces to launch a campaign to increase awareness of strangles and raise vital funds. Together they plan to raise £250,000 to accelerate research into the development of improved means of diagnosis and prevention - ultimately to eliminate the disease.

Anyone wishing to support our work in this area should send a cheque made payable to 'Animal Health Trust Strangles Research Fund'. Donations should be sent to the Animal Health Trust at the address below:



Animal Health Trust

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Breaking the Strangles hold



The disease

Strangles is caused by the bacterium Streptococcus equi and is the most commonly diagnosed infectious disease of horses worldwide. Clinical signs include fever, profuse nasal discharge and abscessed lymph nodes of the head and neck. The swelling of these lymph nodes may, in severe cases, restrict the airway, hence the name 'strangles'.

Scientists at the Animal Health Trust have discovered that S. equi has genetic characteristics typically found in Yersinia pestis – the causative agent of human plague, which also causes lymph node abscesses. Although S. equi does not present a risk to people, it could be said to represent the equine equivalent of human plague.

Complications

Although most animals recover quickly, some are very ill for several days and about 1 per cent may die. Abscesses occasionally form in lymph nodes and body organs distant from the head and neck in a severe condition known as 'bastard strangles'. *S. equi* infection may also trigger an immune complex disease known as purpura haemorrhagica, which causes bleeding into the gums and organs such as the lungs, and is often fatal.

Diagnosis of strangles

Diagnosis is made by culturing pus from abscessed lymph nodes, nasal discharge or throat swabs. A PCR test is also available at the Animal Health Trust, which increases the chances of identifying infected horses.

A new blood test is being developed at the Animal Health Trust, through research funded by The Horse Trust, aimed at improving the veterinarian's ability to identify infected horses in the future.

Can strangles be treated with antibiotics?

Antibiotics are not always useful as they cannot penetrate the centre of an abscess where there is no blood supply. However, early treatment with antibiotics may be helpful if lymph nodes have not become enlarged. Each case should be assessed individually.

Is it possible to vaccinate against strangles?

A live vaccine called 'Equilis StrepE' is available from Intervet. It is given into the upper lip and protects up to 75% of horses from developing strangles. Horses must be boosted every 3 months to maintain protective immunity although, a booster given after 6 months can also enhance protection in the face of an outbreak. Veterinary advice should be sought to determine whether this vaccine should be used on the basis of a specific risk assessment.

The Animal Health Trust is currently conducting exciting new research to evaluate a new strangles vaccine for intramuscular administration. This project has benefited from funding from the European Breeders Fund.

Spread of infection between animals

The ease with which the disease spreads through groups of animals is largely dependent on management practices. Transmission usually requires fairly close contact between infected and susceptible animals. Mechanical transmission is common and it is important that tack is not shared and that handlers change clothes and cleanse hands thoroughly before moving between horses.

Spread occurs frequently through shared water sources where the bacterium will live for periods of over a month. Regular disinfection of water troughs and isolation of infected horses is strongly recommended.

The incubation period of strangles is 7 to 14 days. However, because infected horses can shed the bacterium for long periods, the interval between new cases in an outbreak can be up to 3 weeks or more.

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