EQUESTRIAN

Strangles is a relatively common equine disease. Veterinary surgeon, **Colin Mitchell** of Scott, Mitchell Associates, Hexham, explains more.

Strangles – the myths explained

Horse undergoing endoscopic examination of the throat.

Swabs used in the diagnosis and monitoring of an outbreak.

Strangles is an upper respiratory disease of the horse which most horse owners, even if they have not experienced an outbreak, will almost certainly have heard of.

Among horse owners, there is often a stigma attached to the disease and this can hinder quick diagnosis and effective control. However, strangles is not caused by poor horse husbandry or neglect – it is a respiratory infection.

Strangles is caused by a bacterium, Streptococcus equi, which is spread from horse to horse and via tools, equipment, tack, owners and their clothing. Shared water troughs are also a common source of infection.

In most cases, there are few complications from the disease and most horses make a full recovery. If a horse is affected and then recovers, immunity will usually last for about three to four years. A small number, about 5-10 per cent, of those affected will become carriers of the infection and intermittently shed the bacteria, infect other horses and cause future outbreaks. These carrier horses will usually not show any clinical signs to identify them as carriers.

Collin Mitchell

Enlarged lymph nodes and nasal discharge are signs of strangles.

Clinical Signs

Not all horses will show all the signs, but some of the following may be seen:

- Raised body temperature.
- Nasal discharge.
- Off-colour/lack of appetite.
- Difficulty swallowing.
- Noisy breathing.
- Enlarged (and possibly painful) lymph nodes between the horses lower jaw, or, less commonly, under the ears.
- Burst abscesses with pus draining from these areas.

A less common form of the disease is seen when the horse shows only milder signs such as a raised temperature and loss of appetite. Coughing is not usually a major feature of infection.

The signs seen and severity of infection are related to the health and inherent resistance of the individual rather than to the variations in the organism itself.

Diagnosis

The diagnosis should be confirmed by growth and detection of the bacteria from a naso-pharyngeal (throat) swab taken from suspected animals. Swabs can also be taken from a discharging abscess. Blood samples can be taken from horses to see if they have been previously exposed to the infection. The blood sample does not indicate if the animal is affected by the disease at the time of sampling.

Spread of infection

Transmission of strangles requires fairly close contact between infected and susceptible horses. Spread can also occur through shared water troughs and/or mechanical spread through personnel and grooming kit etc.

The incubation period, that is, the period between infection and signs being evident, varies from seven to 14 days, though up to 21 days has been reported.

The main source of infection is carrier animals, but the bacteria can survive for long periods (up to nine weeks) on wood if conditions of temperature and humidity are optimal.

After infection, most animals will eliminate the bacteria quickly, however, a significant proportion, perhaps 5-10 per cent may not eliminate the infection fully and become carrier animals. The infection often remains dormant in the guttural pouches (recesses in the throat) of these horses.

Treatment

Good nursing care is the mainstay of strangles treatment:

- Keeping water buckets clean and free from mucus (this mucus runs down the horses nose as they lower their heads to drink).
- Keeping the nostrils clean allows them to breathe easier and smell food.
- Encouraging appetite with soft, easy to chew foods which the horse is known to like.
- Pain killer anti-inflammatory drugs can be given to reduce throat inflammation.
- Keeping affected horses warm with appropriate rugs.

The advice regarding the use of antibiotics in the treatment of strangles remains slightly controversial. Opinions vary but in certain circumstances, particularly those where horse welfare is severely compromised, antibiotics will be used. These will usually be given by injection as the affected horses often have difficulty eating.

Managing an outbreak

Each situation will vary, but management of an outbreak on a yard is likely to involve the following:

- Confirmation Streptococcus equi is the causative bacteria and the disease is, in fact, strangles (other Streptococcal infections can look very similar to strangles).
- Movement restrictions to limit horse traffic on and off the affected yard.
- Isolation of known affected cases.
- Segregation of non-affected horses into two groups: Those which have been in-contact with affected horses, but not showing clinical signs; Those which have had no contact with affected horses.
- Horses may need to be moved between these three groups as the outbreak runs its course.
- Blood testing of individuals to determine if they have been exposed to the infection.
- Naso-pharyngeal swabbing (three swabs at seven-day intervals), or endoscopic examination and flushing of guttural pouches of those affected horses to determine when they are free of infection.

Prevention

- Consider a vaccination policy
- Quarantine (minimum two weeks, ideally four weeks) and possible testing of new horses arriving on yard
- Produce a 'health plan' for the yard which details the strategy to cope with any future outbreaks of strangles and other infectious/contagious diseases

Key points

- Strangles is not a notifiable disease
- Strangles is not associated with bad husbandry or management
- Rapid identification and diagnosis with appropriate segregation leads to quicker recovery times and yard movement restrictions being lifted sooner
- Horses appear quite ill, but most will make a complete recovery from the infection
- 5 to 10 per cent of affected horses will remain carriers of the infection
- When the costs of an outbreak are fully considered (see box) vaccination may be a worthwhile consideration
- One of the main obstacles to effective control of a yard outbreak is owner resistance to following infection control procedures

Cost of strangles

Costs associated with a strangles outbreak:

- Nursing time of sick horses
- Veterinary interventions: diagnostic/laboratory tests and treatment
- Lost competition entries
- Loss of fitness due to lack of work/lessons
- Lost income for those on yard who work with horses on other yards, e.g. farriers, instructors, horse-transporters, dealers

Vaccination

- Reduces clinical signs and occurrence of lymph node abscesses
- Immunity begins two weeks after the primary course (two vaccinations four weeks apart)
- Duration of immunity is up to three months, but a response is maintained for up to six months; during this time only a single dose of vaccine is needed to restore immunity
- Horses must be older than four months of age to receive the vaccination
- Pregnant mares and mares with foals at foot should not be vaccinated
- Single booster vaccinations can be given at three or six-month intervals
- Factors which increase the risk of infection include: horses travelling to competitions and mixing with others; new arrivals on yard mixing without spending time in quarantine; outbreaks of disease in neighbouring premises
- Vaccine is administered under the mucosa inside the top lip
- Horses usually tolerate vaccine administration very well
- Yard situations need to be assessed on their own circumstances – your vet will help in the decision over whether or not to vaccinate and the booster intervals