

Strangles

By Dr. Kenton Morgan

Strangles is a bacterial disease caused by a Streptococcal organism; *Streptococcus equi* subspecies *equi* or Strep equi for short. This disease was first described in the mid 1200's by a gentlemen named Jordan Ruffus and is found in horses throughout the world. Also known as "equine distemper", strangles is a highly contagious disease of the upper respiratory tract of horses. It is most prevalent and more severe in young horses such as weanlings and yearlings, but can occur in horses of any age. Infection is through the nose or mouth of the horse and is spread by direct contact between horses as well as by shared water troughs, veterinary equipment, twitches, blankets, grooming tools, buckets, handlers, etc. The Strep equi organism can survive in water sources for up to 4-6 weeks under favorable conditions. But within the environment—the soil or feces of the horse, the organism can survive for only a short time, 1-3 days on average, but during the winter months it may be a little longer as compared to summertime.

It requires anywhere from 3-14 days for clinical signs to develop after the horse has been exposed to the bacteria. Once this bacteria gains access to the respiratory tract of the horse, the organism quickly finds its way to the tonsillar tissues and other local lymph nodes in the throat latch area and under the jaw. Very quickly the bacteria begin to multiply and utilize a number of ways to evade the immune system of the horse. Eventually this rapid bacterial replication attracts more and more white blood cells of the immune system with the resulting development of abscesses within these lymph nodes. The affected lymph nodes can eventually rupture and drain. The drainage contains high numbers of the strep bacteria and is very infectious. All of this produces the classic signs associated with this disease: fever, pharyngitis, non-productive cough, nasty pus-like drainage from one or both nostrils (and even the eyes in some cases), enlarged lymph nodes which can rupture and drain pus, difficult breathing and occasionally we can see abscesses form in other areas of the body (sometimes referred to as bastard strangles).

With all of this going on, it is easy to see how the disease acquired the name "strangles". If the swelling of the lymph nodes put enough pressure on the throat area, the horse may not be able to get enough air into the lungs. In those cases, a temporary tracheostomy must be performed to allow the horse to breathe more normally until the swelling subsides.

With the very contagious nature of this disease it is imperative that when we first see any clinical signs, as noted above, we isolate that individual away from all other horses on the

property and contact your veterinarian. We must then use some practical biosecurity measures to help reduce the risk of spreading the bacteria to other animals. Depending upon your facility, biosecurity measures can vary in their complexity. But some of the very basics should always include: hand washing, not sharing any tack or equipment (as noted above) between sick horses and the rest of the group, and no shared water or feed sources. One thing that does work in our favor with strangles is that horses will have an elevated temperature (fever) about 2 days before they begin to shed the bacteria. So this is a great way to screen other horses and at the first evidence of a fever, move that animal to your isolation area.

How do we treat this disease? Treatment for strangles can vary depending upon the severity of the case, when the disease is first diagnosed (was it early in the disease process or well along before it was recognized) and other factors as determined by your veterinarian. If we catch the disease very early then we may choose to treat with antibiotics. If it is late in the disease process then we may decide to let the disease finish its course. In either case, we would typically treat the horses to reduce their fever and make them more comfortable.

Another challenge with this Strep equi organism is that about one out of ten horses that come down with strangles and then recover from the disease—will become what we call a long-term subclinical carrier or “shedder” of this Strep bacteria. These are horses that show no clinical signs—they look completely normal, but they consistently shed the Strep equi bacteria from their respiratory tract. These animals can harbor the bacteria for years and be a constant risk or source of infection to other horses. The only way to identify these animals is with specific testing methods of the upper respiratory tract performed by your veterinarian.

Prevention—how can we prevent this disease? Vaccination is available for horses to help protect them from this disease. However, it is important to understand that these vaccines are not 100% effective (no vaccines are, for that matter) but they will help prevent disease as well as reduce the severity of disease should an animal come down with strangles after it has been vaccinated. And use common-sense biosecurity when you and your horse are around other animals to reduce the risk of this or any other infectious disease process.

ALWAYS get your veterinarian involved at the first signs of any infectious disease problems you may see in your horse. He or she can then decide on the best course of action. Consult with them also about a good vaccination program and what biosecurity measures you can take to keep your horses healthy.

An excellent source of information on strangles can be found at the Equine Disease Communication Center (EDCC) at this link:

<https://www.equinediseasecc.org/strangles#:~:text=The%20upper%20respiratory%20disease%20commonly,The%20disease%20is%20highly%20infectious.>

Horse owners can also sign up with the EDCC at no charge and be notified regarding any reported strangles cases within the state of Missouri and across the United States, as well as any other equine disease case reports. It is a great source of information on all things related to equine infectious diseases.