Clostridium Perfringens Enterocolitis

Symptoms

Clostridium species, including Clostridium perfringens (C. perfringens) are part of the normal gastrointestinal flora of all horses. Normally, these bacteria are present within the gastrointestinal tract in low numbers and do not cause disease. However, under certain conditions, these organisms can multiply and secrete toxins that damage the cells of the gastrointestinal tract resulting in enterocolitis and diarrhea. Many factors have been associated with increased numbers of C. perfringens organisms within the gastrointestinal tract. These include antibiotic administration, dietary changes, stress, and episodes of colic. These factors may cause alterations in the normal gastrointestinal flora and allow the Clostridium organisms to proliferate. Clostridium species appear to be the most important cause of antibiotic-induced diarrhea in the horse.

Clostridial enterocolitis can be seen in horses of all ages. Clinical signs range from mild colic and/or diarrhea that resolve on their own to those of severe, rapidly fatal colitis (inflammation of the colon).

Testing

Although specific diagnostic tests can be performed on horses suspected of having C. perfringens enterocolitis, obtaining a definitive diagnosis can sometimes prove challenging. Those most commonly performed are DNA (PCR) or ELISA screening tests used to detect one of the bacterial toxins in the horse’s manure. Our laboratory can perform these diagnostics.

Treatment

Treatment of horses with C. perfringens enterocolitis can sometimes be accomplished on the farm, but often requires hospitalization. The antibiotic most often prescribed to treat this condition is Metronidazole. Depending on the severity of the condition, additional antibiotics as well as other medications may be necessary. Horses with severe diarrhea also require the administration of intravenous fluids and/or plasma, and may require extensive supportive care and monitoring.

Prevention

- Minimize risk factors such as sudden dietary changes.
- Monitor horses that are receiving antibiotics very carefully for signs of loose manure. If any loose manure is seen, notify your veterinarian immediately.
- Any horse that develops diarrhea or exhibits signs such as fevers, depression, loss of appetite, or colic should be evaluated by a veterinarian.
- Ensure that foaling stalls are kept clean and that the mare’s udder, perineal region, and hind limbs are cleaned thoroughly prior to and after foaling. This minimizes the foal’s exposure to C. perfringens in manure.
- A C. perfringens toxoid vaccine has been developed at Hagyard Equine Medical Institute to help prevent C. perfringens outbreaks. Please consult with one of our veterinarians about the use of this product.