

Equine Protozoal Myeloencephalitis (EPM)

Last month we covered symptoms and risk of EPM. This month we will discuss diagnosis, treatment and EPM prevention.

DIAGNOSIS

Your veterinarian will first conduct a thorough **physical examination** to assess your horse's general health and identify any suspicious signs. One notable clue is the disease often tends to affect one side or part of the horse more than another.

If your equine practitioner suspects EPM, he or she may order blood and cerebrospinal fluid (CSF) analysis. *Cerebrospinal fluid may be collected by way of a special needle inserted into the spinal canal either in a site on the lower back or at the poll. Potential risks are involved with the procedure that should be discussed with your veterinarian.* A positive blood test only means the horse has been exposed to the parasite, not that it has or will develop clinical disease. Currently three laboratories are analyzing blood and spinal fluid for the presence of *S. neurona* antibodies. Prompt, accurate diagnosis is essential and treatment should begin immediately.

TREATMENT

The sooner **treatment** begins; the better the horse's chances are for recovery. Sixty to 70% of EPM cases aggressively treated show significant or complete reversal of symptoms. Many horses are able to return to normal activity. Here are some things you should know about treating EPM:

- At present, there are two labeled anti-protozoal drugs approved by the FDA to treat EPM. There are also two combination therapies that may include sulfa antibiotics and anti-folate medications. Consult your veterinarian.
- Anti-inflammatory drugs may be prescribed to alleviate symptoms and prevent reactions to parasite die-off during treatment.
- Supplementation with vitamin E, an antioxidant, is often recommended to aid healing of nervous tissue.
- Average duration of treatment is one month with the proprietary products, although depending on which medication is used can sometimes be longer (up to 3-6 months with combinations).
- Treatments can be expensive.
- Although complications are rare, treatments may affect stallion fertility and may pose certain health risks to unborn foals.
- While success rates are high, **not all horses respond** positively to therapy. Approximately 10-20% of horses may experience a relapse.
- While a horse is being treated, taking intermittent blood samples may be recommended to monitor potential side effects such as anemia, low platelet count and low white blood cell count.
- Horses undergoing treatment should be closely observed for signs of improvement or decline, especially negative side effects to the drugs, such as acute diarrhea.
- Be sure to report any changes in the horse's condition to your veterinarian.

METHODS OF PREVENTION

Based on published research, there are several things horse owners can do to protect their horses from infection with EPM. There is currently a vaccine to immunize against *Sarcocystis neurona*; however, the efficacy is unknown at this time. At best, good horse-keeping practices will **discourage unwanted visitors** such as opossums and other rodents from contaminating hay, grain and bedding.

Here are a few suggestions:

- Keep feed rooms and containers closed and sealed.
- Use feeders, which minimize spillage and are difficult for wild animals to access.
- Clean up any dropped grain immediately to discourage scavengers.
- Feed heat-treated cereal grains and extruded feeds since these processes seem to kill the infective sporocysts.
- Keep water tanks clean and filled with clean, fresh water.
- Maximize your horse's health and fitness through proper nutrition, regular exercise and routine de-worming and vaccinations.
- Schedule regular appointments with your veterinarian.



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