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Foil Owners Beware: The Danger of Ascarids



One of the most lethal equine internal parasites—the ascarid, or roundworm—shows no mercy to the young. It infects and damages various body systems of horses during their first 18 months of life.

The Suspect

Ascarids migrate through the bloodstream to a horse's liver and lungs during their juvenile stage before returning to the small intestine to mature. Because of this migration path, clinical signs of ascarid infection can vary from respiratory disease to impaction colic, both of which can threaten your foal's health and, potentially, his life.

"Ascarid infections are extremely prevalent in foals and are virtually ubiquitous at breeding facilities where new foals are raised annually," said Craig R. Reinemeyer, DVM, PhD, president of East Tennessee Clinical Research Inc., in Rockville, an independent business that conducts research for animal health companies.

To Complicate Matters

Ascarids have developed widespread resistance to ivermectin and moxidectin, two deworming compounds veterinarians and horse owners have commonly used to control them.

In a peer-reviewed study led by Reinemeyer, researchers divided foals confirmed as infected with ivermectin-resistant ascarids into two groups and treated with either a larvicidal dose of fenbendazole (10 mg/kg daily for 5 days) or with an oral ivermectin dewormer at the labeled dose (200 mcg/kg). Starting at 72 days post-infection, researchers collected fecal samples regularly and examined them for ascarid eggs. The foals treated with a larvicidal dose of fenbendazole had an average egg per gram fecal count of 1.35, while the group treated with ivermectin had an average egg per gram count of 281.03; this confirmed that ivermectin-resistant ascarids can be successfully treated with a larvicidal dose of fenbendazole.

"Five consecutive days of treatment with fenbendazole at 10 mg/kg decreased the number of adult ascarids by 96.3% and associated egg counts by 99.5%," Reinemeyer said. "Given the high prevalence of macrocyclic lactone (a drug classification to which ivermectin belongs) resistance in ascarid populations, a five-day regimen of fenbendazole is the only anthelmintic consistently effective against immature ascarid infections."

Sounds Good, but is it Safe?

Not all dewormers you find on the shelf at your tack and feed store are safe for use in foals (foals have a less-developed blood-brain barrier than adult horses, making them more susceptible to the toxic effects of ivermectin and moxidectin), but fenbendazole is one option that is safe to administer to young horses at all of its labeled doses.

"Overall, benzimidazole anthelmintics (which include fenbendazole) might be the best therapeutic choice for ascarid infections in all foals," Reinemeyer said. "The benzimidazole drug class affects worm metabolism and kills them slowly. The other anthelmintic classes approved for use in foals (pyrantel salts and macrocyclic lactones) affect the nervous system of worms, which kills them rather quickly. The latter situation seems to result in small intestinal impactions with dead ascarids more frequently than after treatment with the benzimidazole class."

In other words, all things being equal, fenbendazole's mode of action is less prone to creating ascarid impactions than some other types of dewormers.

What about My Other Horses?

Due to widespread resistance to ivermectin and moxidectin, ascarids can also threaten horses beyond the age of 18 months if these animals were not effectively dewormed as foals and have harbored an ascarid infection into their adulthood. Therefore, fenbendazole should also be considered as part of a veterinarian-guided deworming regimen for adult horses.

A single dose of fenbendazole (5 mg/kg for adult horses and 10 mg/kg for young horses less than 18 months of age) is labeled for the control of large and small strongyles, pinworms, and ascarids. Additionally, a larvicidal dose of fenbendazole is the only U.S. Food and Drug Administration (FDA)-approved treatment labeled for all stages of encysted small strongyles. Fenbendazole can be used as part of a strategic deworming regimen for:

- Foals;
- Weanlings;
- Yearlings;
- Broodmares;
- Performance horses;
- Debilitated or thin horses;
- Horses with recurrent colic or chronic diarrhea;
- Horses with chronic weight loss; and

Senior horses.

Take-Home Message

Ascarid infections are not something owners should take lightly. Work with your veterinarian to protect your foals from this potentially fatal parasite and to create a deworming regimen based on fecal egg count tests for every horse in your barn.