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David Marshall, VMD
Delaware Equine Extension Veterinarian

Equine Colic

Even in the 21st century, the number one killing disease of horses continues to be colic. Colic is second only to old age as the major cause of death with horses. In its exacting definition, the term "colic" means abdominal pain. Horse enthusiasts tend to use the term colic to refer to a hodge-podge of signals that a horse exhibits when suffering abdominal pain, thus the word has become a sweeping catch-all for a variety of conditions with many causes and a wide range of severity.
In veterinary medical literature almost 100 different types of colic are recognize. The good news is most cases of colic are mild and resolve with simple medical treatment. But do not underestimate colic, and never ignore the signs. Many of the conditions that lead to colic can become life-threatening in quickly, and the best chance for a full recovery comes with timely identification of disease and veterinary attention.

The signs of colic can range from mild to severe and from barely discernible to bizarre. Commonly recognizable indicators of colic include:

- turning the head toward the flank
- pawing
- kicking or biting at the belly
- stretching out
- repeatedly lying down
- repeatedly rolling
- sitting in a dog-like position
- holding head in an unusual position and extending the neck
- leaving food
- lack of bowel movements
- reduced or absent digestive sounds
- playing in water
- inappropriate sweating
- rapid breathing and/or flared nostrils
- elevated pulse rate or elevated heart rate (normal horse heart rate 25-40 beats per minute)
- depression
- upper lip curling unrelated to sexual interest

Horses have frequent episodes of gut disturbances that result in "colic" pain. They seem to have a low threshold to abdominal pain, which simply means it takes minor gut disturbance in the horse to provoke a "colic attack."

The first large-scale, formal initiative to estimate the incidence of equine colic in the continental United States was by the USDA's National Animal Health Monitoring System (NAHMS) Equine '98. Horses from 28 states were monitored for colic. It was found that the incidence of colic was 4.2 events per 100 horses per year. Geographic region differences had no impact in colic incidence rate. Overall, 1.4 percent of colic events resulted in surgical intervention. The case fatality rate for all colic events was 11 percent.

Suspicions that certain breeds of horses may be more prone to colic attacks than other breeds is being studied, yet the scientific evidence to prove breed sensitivity is contradictory. Some studies have identified Arabians as being at increased risk of colic. Other studies have indicated Thoroughbred horses and Standardbred horses to be at increased risk. Although veterinary science cannot conclude breed sensitivity to colic yet, one thing is certain—all breeds are vulnerable to the disease. Regardless of breed, your horse is at significant risk of getting colic some day.

There is no clear evidence for a sex predisposition to colic either. Stallions, geldings and mares have increased risks for specific colic types, but all get colic. In some studies, it was found that horses older than 10 are at increased risk, but results vary among studies. I have read some reports indicating horses less than 10 years old are at increased risk to colic.

Confused yet? Let me explain. The conflict within studies can be explained, I think, based on design of study, population of horses studied, and methods of data analysis. For, example, a colic study undertaken in an area in which the predominant breed is Arabian; Arabians will look more prone to the disease, even with sophisticated mathematical adjustments. The same holds true for differences in age and sex studies.

What is clear is that poor management practices can lead to colic in your horse. Good management practices can protect your horse from colic attacks and, potentially, death. Although not every case of colic is avoidable, the following guidelines from the American Association of Equine Practitioners (AAEP) can maximize your horse's health and reduce the risk:

- Establish a daily routine – include feeding and exercise schedules – and stick to it.
- Feed a high-quality diet comprised primarily of roughage.
- Avoid feeding excessive grain and energy-dense supplements. At least half of horse's energy should be supplied through hay or forage. A better guide is that twice as much energy should come from a roughage source than from concentrates. When feeding concentrates (grains), always follow the 0.4% rule, which states that at a simple meal feed a horse only 0.4% its body weight. Translation: an adult 1,000-pound horse should never be given more than 4 pounds of concentrate at any one feeding.
- Divide daily concentrate rations into two or more smaller feedings rather than one large one to avoid overloading the horse's digestive tract. Hay is best fed free-choice.
- Set up a regular parasite control program with the help of your equine practitioner.
- Provide exercise and/or turnout on a daily basis. Change the intensity and duration of an exercise regimen gradually.

- Furnish fresh, clean water at all times. (The only exception is when the horse is excessively hot; then give it small sips of lukewarm water until the animal has recovered.)
- Do not put feed on the ground, especially in sandy soils.
- Check hay, bedding, pasture and environment for potentially toxic substances, such as blister beetles, noxious weeds and other ingestible matter.
- Reduce stress. Horses experiencing changes in environment or workloads are at high risk for intestinal dysfunction. Pay special attention to horses when transporting them to shows or changing their surroundings.

Colic in the horse is such a broad and complicated subject that I cannot address it thoroughly in one column. I will restate the two most crucial ideas—good management practices can reduce your horse's chances of getting colic, and colic is serious business. Because the mechanism that causes abdominal pain in the horse is from gut ischemia (reduced blood flow to the gut), colic is reason for emergency veterinary attention or veterinary-directed therapy.