



Colic in Horses

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History

Among the species of domestic livestock, the horse most commonly suffers from colic. Colic is a general term indicating abdominal pain. The anatomy of the horse's digestive tract, its digestive nature and the management practices imposed by man seem to contribute to its occurrence.

Colic may not be caused solely by diseases of the intestinal tract. In fact, infections elsewhere in the body, as in the urogenital or respiratory tract, as well as pregnancy may present symptoms of colic. A survey in 1986 by the Morris Animal Foundation reported that colic was the leading cause of death in horses and the number one health concern of horse owners.

The amount of money spent on the disease is impossible to totally assess, because both treatment costs and time lost are involved. In 1983 the equine insurance industry paid \$16 million for claims directly attributable to colic. Therefore horse owners need to know the causes, clinical signs, diagnostic and treatment procedures and preventive measures to reduce colic's incidence.

Causes

Colic has many types and causes. Factors such as sudden changes in the weather, feeding (frequency, quantity or quality of feed), overexertion or chilling may lead to colic. Spasmodic colic is caused by severe contractions of the intestines. Intestinal obstruction or a twisted intestine create a very severe condition resulting in extreme pain. The possibility of an obstruction or twisted intestine should be

diagnosed as early as possible, because it is potentially life threatening and requires surgery.

The most common cause of colic is internal parasites.

- Migrating strongyle larvae damage blood vessels in the intestines, decreasing blood supply which leads to necrosis, decreased motility and pain.
- Large numbers of roundworms can cause impaction or obstruction of the intestines.
- Administering deworming medicine (anthelmintics), particularly to horses overloaded with internal parasites, can cause colic.

Colic symptoms do not always result from a disease of the digestive tract. Symptoms also can arise from

- Infections elsewhere in the body, or from infectious diseases like rabies, pleurisy and dermatitis.
- Conditions affecting the locomotor system, like laminitis and other forms of lameness.

Certain conditions may lead to an intestinal obstruction, which will cause colic symptoms:

- Horses kept in sandy paddocks or overgrazed pastures are predisposed to suffer from "sand" colic. In this situation, ingested sand obstructs the intestine.
- Spoiled silage and enteritis can also obstruct the large intestine.
- An obstruction may also occur if the horse ingests a foreign object.

Diet can cause colic symptoms:

- Sudden changes in feed, (either type or quantity), or moldy feed can cause colic due to improper fermentation in the gut or an obstruction.
- A predominantly concentrate diet can lead to colic if an adequate supply of long stem roughage is not provided.
- Horses with bad eating habits (bolting, cribbing) are also prone to colic.
- Lack of water can also lead to colic symptoms and may even cause an impaction to occur. However, remember to avoid either feeding or allowing a "hot" horse after heavy exercise to drink heavily as doing so can not only lead to colic, but to other serious ailments, such as laminitis.

Clinical Signs

A horse with mild colic will paw the ground with its front feet, be restless, lie down and roll frequently and look at its abdomen. A horse with more severe colic will roll and may become cast and lie on its back to relieve intestinal pressure. Horses with very severe colic will throw themselves to the ground and roll violently. These horses can be dangerous to work with until properly sedated. Pulse and respiratory rates rise while temperature typically remains within a normal range. The absence of abdominal sounds is characteristic of a horse with colic.

Diagnosis

Get a thorough exam by a veterinarian to determine the colic's severity and treatment as soon as possible after the symptoms start. First observe the horse in its stall or paddock. Note the following:

- general condition and behavior (calm, restless, alert, dull, apathetic);
- frequency of abdominal pain (none, intermittent or continuous);
- frequency of abdominal sounds (normal, increased, decreased or absent);
- abdominal size (normal, reduced, distended);
- nature of peripheral pulse (normal or weak);
- packed cell volume;
- capillary refill time (the length of time it takes for gums to return to normal color after pressure is applied);
- other signs (sweating, wounds, etc.);
- water intake;
- presence of and consistency and regularity of feces.

Further examination of the colic patient includes a measure of pulse and respiratory rates (normal resting pulse rate is 36 beats/minute and respiration rate is 8-16 breaths/minute), rectal palpation, and passing a stomach tube. The stomach tube should always be passed to rule out the possibility of stomach overload. Often the stomach tube acts as a treatment, since it can release fluids or gas from the stomach.

After these observations, the veterinarian can suggest a treatment depending on the type of colic. For example, mild, intermittent colic can usually be treated conservatively, while a horse with a twisted intestine (torsion) requires surgery.

Treatment

Traditionally, a horse with colic is walked to help relieve anxiety and to prevent rolling, which can lead to intestinal twisting. Walking may also help to restore normal activity in the intestine and allow the horse to defecate and/or relieve the buildup of pressure in the intestines. If 30 minutes pass and the symptoms either are unrelenting or increasing in severity, a veterinarian's assistance is necessary.

After an initial exam to determine the type and severity of the colic, treatment by a veterinarian may involve using analgesics (pain-relievers). Often the horse is given mineral oil (about 1 gallon) through the tube to lubricate the tract and to act as a laxative to help fecal matter move through the tract.

Evaluate the horse in the period following the initial treatment. Because of the possibility that the intestines may have an obstruction, check the horse at regular two hour intervals following the initial treatment. If the symptoms do not appear alleviated, an obstruction in the intestines should be considered, and surgery may be necessary.

Control

Preventing colic involves many parameters. Most important is proper management. Avoiding situations which predispose the horse to colic will undoubtedly reduce the incidence of colic.

Here are some practical steps to reduce chances of colic:

1. Do not overgraze pastures and paddocks.
2. Provide a clean, adequate and abundant source of fresh water daily.
3. Feed on a regular schedule from day to day.
4. Do not feed moldy or spoiled grain or hay.
5. Provide adequate long stem roughage in the diet.
6. Keep stalls and paddock areas free from foreign objects that the horse might ingest.
7. Put all horses on a regular, properly designed deworming program. This step is imperative.

In general, good, practical horse management along with good common sense can allow the horseman to avoid situations which may predispose horses to colic. If colic symptoms do arise, contact your veterinarian.