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Popular Article

Colic in Equines: A life threatening cause

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Introduction

Colic in horses is defined as abdominal pain. It's a clinical sign rather than a diagnosis. The term colic can encompass all forms of gastrointestinal conditions, which cause pain, as well as other causes of abdominal pain not involving the gastrointestinal tract. The incidence of colic in general horse population is about 4-10%. Among domesticated horses, colic is the lead cause of premature death.

On presentation, history about feeding practices, change in feed, extent of exercise, previous medical problem, foaling, stage of pregnancy and any other managerial change were recorded. Lack of proper deworming (55%) was the main risk factor associated with colic followed by change in feeding practices (28%), periparturient period (21%), change in extent of work (15%) and previous history of colic (10%). After final diagnosis, all the cases were finally categorised into 4 groups viz; Impaction, inflammatory, spasmodic and miscellaneous. Impaction (36%) and inflammatory (36%) were the most common cause of colic followed by miscellaneous (15%) and spasmodic (13%). Colic is a potentially life-threatening disease. If a horse displays moderate or severe symptoms, they will need urgent veterinary attention and possibly referral to us, if this is an option



Causes and Symptoms

Colic is defined as any abdominal pain although horse owners typically refer to colic as problems with the gastro-intestinal tract. The causes of colic are numerous, but generally they are related to the anatomy and the microflora of the horse's gastrointestinal tract. Some more common causes of colic include:

1. Dietary causes:

- ✓ Overfeeding.
- ✓ Feeding of poor quality roughages/ grains
- ✓ Sudden change in feed
- ✓ Excessive feeding of bran in horses.
- ✓ Feeding of mouldy straw or rotten food material.
- ✓ Ingestion of irritant chemicals/ poisonous plants.
- ✓ Ingestion of sand, stones and other foreign bodies.
- ✓ Insufficient drinking water.
- ✓ Drinking excess quantity and cool water after heavy work.

2. Animal factors:

- ✓ Greedy feeding
- ✓ Bad teeth-improper mastication
- ✓ Nervous temperament of animals.
- ✓ Exhaustion
- ✓ Old age and debility.
- ✓ Feeding after race in horses.
- ✓ Autonomic imbalance

3. Environmental factors:

- ✓ Excitement by lighting / thunderstorm.
- ✓ Placing in unaccustomed environment
- ✓ Weather change- exposure to cold

4. Infective factors:

- ✓ Bacteria- salmonellosis, colibacillosis



- ✓ Viruses- equine viral arteritis.
- ✓ Parasites- strongylosis, ascariasis, gastrophyllus larvae.
- ✓ Fungus- feed infested with aspergillus and condida.
- ✓ Protozoa-coccidiosis

5. Mechanical factors:

- ✓ Volvulus /torsion twisting of intestine
- ✓ Intussusceptions- telescoping of intestine, invagination of one part of intestine into other part.
- ✓ Hernia
- ✓ Strangulation
- ✓ Enteroliths.
- ✓ Peritoneal adhesion
- ✓ Caecal dilation and torsion

6. Long term use of NSAIDS

7. Stress

8. Antibiotics may lead to colic because they alter the microbial population in the gut, which in turn affects starch digestion. Dental problems may cause colic if the horse is unable to chew its food sufficiently. Older horses fed coarse hay are at greater risk of impaction colic.

Signs of colic include:

1. Pawing
2. Rolling
3. Bloating
4. Sweating
5. Distress
6. Uneasiness
7. Loss of interest in food and water
8. Peculiar postures (sitting, stretching)
9. Absence of gut sounds
10. Frequent urination



A colicky foal may not show typical signs of colic. Instead, they may lay on their back with their legs tucked. The foal owner or manager needs to be on alert for any abnormal foal behaviour.

Types of Colic

A. Classification on the basis of origin of pain

1. True colic – Pain in abdomen originating from GI tract is known as true colic.
2. False colic- Abdominal pain originating from organs other than GI tract is known as false colic. E.g.- liver, kidney, uterus, peritoneum.

B. Etiological classification

Physical colic – pain due to –presence of physical agent like;- stone, sand, feed mass/bolus, enteroliths etc in GI tract

Functional colic- Pain because of altered function of GI tract due to some infections [virus, bacteria, parasites,] irritant chemicals and plant poisonings.

C. Clinical classification

1. Impaction colic – the large intestine folds upon itself and has several changes of direction (flexures) and diameter changes. These flexures and diameter shifts can be sights for impactions, where a firm mass of feed or foreign material blocks the intestine (including the cecum). Impactions can be induced by coarse feed stuff, dehydration or accumulation of foreign material like sand.

2. Gas colic – all colic are associated with some gas build up. Gas can accumulate in the stomach as well as the intestines. As gas builds up, the gut distends, causing abdominal pain. Excessive gas can be produced by bacteria in the gut after ingestion of large amounts of grain or moldy feeds. A nasogastric (stomach) tube inserted by a veterinarian is used to relieve the pressure of the gas and fluid accumulation in the stomach.

3. Spasmodic colic – defined as painful contractions of the smooth muscle in the intestines. Spasmodic colic has been compared to indigestion in people and is usually easily treated by a veterinarian. Over excitement can trigger spasmodic colic.



4. Enteric colic – inflammation of the intestine possibly due to bacteria, grain overload or tainted feed. Horses with enteritis may also have diarrhoea. Enteritis is often hard to diagnose and may present itself similar to displacement or impaction colic.

Duration of disease:

1. Acute: above 24-36hrs
2. Chronic: below 24-36hrs.
3. Recurrent: multiple episodes separated by periods > 2 days of normality.

First Aid

Observe your horse and monitor vital signs as well as passing of any faeces. Remove access to feed. If there is a blockage, any feed intake will only intensify the problem.

Let the horse rest as much as possible. It is not necessary to walk the horse unless the horse is rolling and endangering himself or people.

Do not administer any medication without the direction of the attending veterinarian. Pain medication may mask the colic symptoms and complicate diagnosis and treatment.

Upon arrival, the veterinarian will listen for gut sounds, monitor vital signs, pass a nasogastric tube and perform a rectal exam. Most colic cases can be treated on the farm with medication and the use of a nasogastric (stomach) tube to alleviate gas and administer medications. However, if the veterinarian suspects a displacement or an impaction that can't be successfully treated on site, she will refer you to an equine surgical hospital.

Treatment

To give the proper treatment for colic, it is important to determine the cause, so that it can be corrected. The severity of the signs of colic is not necessarily indicative of the severity of the colic, and sometimes it is difficult to determine the exact cause and therefore the correct treatment. For these reasons make sure to have a veterinarian evaluate your horse as soon as possible. Many cases of colic can be treated successfully with medication, while others involving severe impactions or twists may require immediate surgery.



Prevention and Control

Once you figure out the cause and have treated the colic, some of the preventative measures are self-explanatory. For example, if an abrupt change in diet caused a problem, make sure to make dietary changes gradually in the future. Some other preventative measures include:

- Feed your horse on a regular schedule even on the weekends.
- Do not make sudden changes to the horse's diet.
- A clean fresh water supply should always be available.
- Keep feed boxes and hay racks as well as the feedstuffs clean and free of mold and dust.
- Check teeth frequently for dental problems that may cause chewing issues.
- Provide adequate exercise.
- Feed the appropriate amount of forage (at least 50% of the total diet).
- Keep feed off the ground to avoid sand ingestion.
- Practice an effective parasite control program that fits your farms needs.

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