SPASMODIC COLIC

Etiology

- Spasmodic colic occurs sporadically and causative factors are not usually identified.
- Suggested causes Include excitement, such as occurs during thunderstorms, preparations for showing or racing, and drinks of cold water when hot and sweating after work.
- Presence of a heavy burden of tapeworms (*Strongylus vulgaris* larvae). Mucosal penetration and submucosal migration of *Strongylus vulgaris* larvae are known to cause changes in ileal myoelectrical activity that could lead to the development of colic in horses.
- Psychogenic colic occurs rarely in horses.

Epidemiology

The condition is sporadic. It affects horses of all ages but is not recognized in young foals. No apparent breed or sex predisposition is noted.

Pathogenesis:

The hyper motility of spasmodic colic in horses is thought to arise by an increase in parasympathetic tone under the influence of the causative factors mentioned above.

CLINICAL FINDINGS

- Brief attacks of abdominal pain, and the pain is intermittent.
- The horse are rolling, pawing and kicking for a few minutes.
- Shaking itself and standing normally for a few minutes until the next bout of pain occurs.
- Intestinal sounds are often audible some distance from the horse and loud,
- On auscultation are heard rumbling borborygmi sound.
- The pulse is elevated moderately to about 60/min.
- patchy sweating, but rectal findings are negative and there is no diarrhea.
- Rectal examination is usually unremarkable. The signs usually disappear spontaneously within a few hours.

Clinical pathology

Laboratory examinations are not used and the disease is not fatal.

Differential Diagnosis

- Dorsal displacement left colon (nephrosplenic ligament entrapment)
- Small intestine or colon strangulation by lipoma

Treatment

- Antispasmodic drug such as hyoscine (scopolamine).
- Analgesic drug (Detomidine, xylazine, or butorphanol).
- Administered mineral oil (1 mL/kg) by nasogastric intubation.

SAND COLIC

Ingestion of sand with its accumulation in the large colon causes mild to severe colic, which can be recurrent, and cause acute or chronic diarrhea and weight loss in equids.

Etiology:

- Grazing sandy fields with short pasture.
- Fed on sandy ground.
- Provided with feed contaminated with sand.
- Underfeeding.

Epidemiology:

-Horses of all ages are affected, including foals, which acquire the sand while eating dirt.
- The case fatality rate for horses treated by surgical removal of sand is 20-40%.
- The survival rate for horses treated medically is approximately 90%.

Pathogenesis:

The disease is attributable to sand accumulation in the right dorsal or transverse colon, or pelvic flexure, causing mucosal irritation، luminal obstruction, and abnormal motility. Sand in the ventral colon does not cause obstruction but is associated with colon volvulus and displacement.

Clinical signs:

- mild to severe colic that is often recurrent and can be associated with diarrhea, abdominal distension, and anorexia, the diarrhea is watery but not profuse or malodorous
- The colic is often mild unless there is colon torsion or volvulus (typical sign).
- Affected equids are frequently tachycardia and are sometimes mild pyrexia
- Auscultation over the cranial ventral abdomen just caudal to the xiphoid reveals sounds similar to those made when a paper bag is partially filled with sand and rotated. This sound is diagnostic of sand accumulation in the ventral colon.
- Rectal palpation may reveal sand impaction in the ventral colon, but more frequently colon distension with gas is present.
- Rectal palpation will not detect sand accumulation in the transverse colon.

Clinical pathology:

- Radiography will demonstrate sand in the ventral and dorsal colons and can be used to monitor the efficacy of treatment.
- Ultrasonography has good sensitivity and specificity (88%) compared to radiography for detection of sand in the ventral colon. and is not as effective at detecting sand in the right dorsal or transverse colon.
- Peritoneal fluid is normal except when there is ischemia or necrosis of the colon or when peritonitis is present.
- Feces collected during rectal examination can be examined for sand by mixing it with water in a clear plastic rectal sleeve and hung for 30 minutes then the sand will settle out .

Treatment:

Medical treatment. In less acute cases,

- pain relief and correction of fluid and electrolyte abnormalities.
- prevention of continued ingestion of sand, and removal of the sand.
- Administration of psyllium mucilloid (0.5-1 g/kg orally every 12 h for 4-8 weeks) administered via a nasogastric tube or as a dressing on feed.
- Mineral oil (1mL/kg) or MgS04 (1g/kg) orally may hasten sand removal.
- Administration of a combination of psyllium (0.5 kg orally twice daily) and mineral oil (2 L orally once daily) are more effective.

Surgical treatment In horses with severe colic (acute obstruction of the right dorsal or transverse colon by sand) volvulus, or displacement.

Control of the disease

- Preventing ingestion of sand by feeding horses hay and grain from clean feeding bins.
- Providing adequate roughage in the diet.
- Pasturing horses in fields with adequate grass cover.
- Daily administration of psyllium mucilloid.

Digestive system