

Melena

Melena (dark, tarry feces) is caused by blood in the lumen of the stomach or proximal intestinal tract, resulting in black (digested) blood appearing in the feces. Usually blood is a result of a bleeding ulcer in the stomach or abomasum but may also result from ingestion, oral or pharyngeal bleeding, or coughing up blood that is then swallowed.

In ruminants the presence of dark red feces from an intussusception is the main differential to be considered.

Blood must stay in the intestinal tract for hours before the hemoglobin is altered and turns black. Small amounts of hemoglobin can be detected by using one of the tests for occult blood.

In general, fairly large volumes of blood (1 to 2 L) are required to produce a positive fecal occult blood test in the horse.

A 24- to 48-hour time period is necessary for orally administered blood to reach the rectum in the horse.

In ruminants, smaller volumes of blood are necessary to produce a positive fecal occult test, and a faster transit time is expected. In approaching a diagnosis, rule out pulmonary, oral, or pharyngeal bleeding.

-Bleeding of gastrointestinal origin can be determined to be caused by mucosal disease or full-thickness bowel disease (such as an intussusception or neoplasia) by examining peritoneal fluid for abnormalities.

Abnormalities in peritoneal fluid are usually present in the case of serosal involvement.

Bleeding abomasal ulcers are probably the leading cause of melena in ruminants.

They can be silent except for the dark feces and weakness if severe anemia develops.

In older horses, gastric squamous cell carcinoma is a frequent cause of gastric hemorrhage.

Significant bleeding is much less common in foals and calves with gastric ulcers, and melena is rare in foals and calves with gastric ulcers.

Consideration should be given to whether or not the melena is the result of clotting abnormalities associated with such diseases as DIC or warfarin poisoning.

-In cattle with colic and dark red-to-black feces, intussusception should be considered likely.

When severe anemia develops, there is evidence of blood loss because the decrease in PCV and RBCs is accompanied by a decrease in plasma proteins.

Nonspecific therapy for melena consists principally of blood transfusions in life-threatening cases.

Sudden, massive gastric or abomasal bleeding may result in anemia and collapse before melena has appeared.

In the foal, gastric ulcers may be treated with histamine-2 (H₂) blockers such as ranitidine or cimetidine. These drugs are probably less effective in ruminants. Their benefit in ruminants with abomasal ulcers is not well understood at present.

Causes of Melena in Horses

Common Causes

Gastric or duodenal ulcer

Gastric squamous cell carcinoma

Coughing up and swallowing blood

Less Common Causes

Phenylbutazone toxicity (nonsteroidal antiinflammatory drugs)

Purpura hemorrhagica

Gastroenteritis with bleeding

Warfarin toxicity or other coagulation disorder

Colonic hematomas

Disseminated intravascular coagulation with mucosal hemorrhage

Anterior or proximal enteritis (duodenitis or proximal jejunitis)

Arsenic toxicity

Hepatic failure with hemolysis

Nonsteroidal antiinflammatory drug (NSAID) toxicity

Uncommon Causes

Lupus erythematosus

Factor VIII deficiency, hemophilia A

Histoplasmosis

Hemangiosarcoma

Snake bite

Causes of Melena in Ruminants

Common Causes

Abomasal ulcer

Intussusception

Less Common Causes

Lung abscess with ruptured blood vessel

Oak toxicity

Coccidiosis

Gastroenteritis with bleeding

Arsenic toxicity

Ingestion of blood after parturition

Intestinal parasites

Toxicity from nonsteroidal antiinflammatory drugs

Abomasal torsion or volvulus
Hemorrhagic bowel syndrome

Uncommon Causes

Duodenal ulcers
Hemophilia A, factor VIII deficiency
Bacillary hemoglobinuria
Sulfur toxicity
Warfarin poisoning or other coagulation disorder
Snake bite
Bovine viral diarrhea
Malignant catarrhal fever
Winter dysentery
Nartheicum asiaticum maxim poisoning (exotic)

Drugs such as the hydrogen pump blocker omeprazole are useful and potent gastric pH effectors. Therapy with protectants such as sucralfate (which coats the ulcer) is a viable and clinically useful therapy in the horse.

In ruminants, orally administered protectants and antacids are so diluted by the time they reach the abomasum that they are probably of limited benefit.

Blood, Fibrin, and/or Mucus in Feces (Dysentery)

Bloody diarrhea is termed *dysentery*. The presence of fresh blood or clots in the feces is termed *hematochezia*, and is the result of bleeding into the distal intestinal tract. Occasionally blood from the Female reproductive tract may appear in or on the feces.

Fibrin indicates severe inflammatory bowel disease. Fibrin appears as casts, chunks of yellow-gray material, or mucosa-like sheets.

Mucus in feces increases with inflammatory bowel diseases such as salmonellosis. It is often seen when fecal volume is small in animals that are anorectic, in which case the feces are often coated with mucus. This mucous coating can become obvious in the horse and is not a sign of bowel disease in this case.

Frank blood in feces without diarrhea and other evidence of gastrointestinal dysfunction or systemic illness may be a result of a bleeding disorder, a traumatic foreign body, rectal examination trauma, sadistic rectal trauma, or rectal trauma in a mare from a stallion penetrating the rectum .

Many of the diseases listed as causes of melena may also result in gastrointestinal hemorrhage and are therefore listed in both places.

If the bleeding is in the distal gastrointestinal tract, fresh blood may be seen in the feces.

With diseases midway down the tract, such as intussusception, fecal material is dark red and may appear black until a sample is examined closely and spread on a white surface