



Lecture title: Manifestations of Alimentary Tract Dysfunction 2

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Summary: Manifestations of Alimentary Tract Dysfunction 2

4- Diarrhea, Constipation and Scant Feces:



Diarrhea:

Definition: It is a disorder in the intestine, characterized by frequent evacuation of the bowel, faeces are watery and it may be tinged with blood.



Common causes of diarrhea are:

1. Enteritis (bacterial, viral, and parasitic).
2. Malabsorption due to villous atrophy and in hypocuperiosis (due to molybdenum excess).
3. Local structural lesions of the stomach or intestine, including: ulcer of the abomasum or stomach, tumor, and intestinal adenocarcinoma.
4. Chemical irritants such as arsenical preparations or mercury.
5. Poisonous plant.
6. Carbohydrate engorgement in cattle.
7. Terminal stages of congestive heart failure (visceral edema).



Clinical Findings: Frequent evacuation of watery faeces and may be stained with blood, colicky pain and expulsion of gases, dehydration (sunken eye, rough coat and non-elastic skin), the rise of body temperature **in cases of bacterial or viral diseases.**



Constipation:



Definition: It is the difficult evacuation of the faeces because the faeces are retained for a long time in the intestine.

Common causes of constipation or scant feces are:

1. Diseases of the forestomach causing failure of outflow.
2. Impaction of the large intestine in the horses.
3. Severe debility, as in old age.
4. Deficient dietary bulk, usually fiber.
5. Chronic dehydration.
6. Partial obstruction of large intestine.




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7. Painful conditions of the anus.
 8. Paralytic ileus.
 9. Terminal stages of pregnancy in cows.
- ✓ **Clinical Findings:** Loss of appetite, the animal is dull and depressed and there is abdominal pain. The faces are hard in consistency and may be stained with blood, defecation is accompanied by straining.

Scant Feces:

- ✓ Scant faeces are small quantities of faeces which may be dry or soft.
- ✓ Scant faeces are most common in cattle with abnormalities of the fore stomach or abomasum resulting in the movement of only small quantities of ingesta into the small and large intestines (**outflow abnormality**)
- ✓ impaction of the large intestine in the Horse, Severe debility as in old age, deficient dietary fiber, chronic dehydration, partial obstruction of the large intestine, painful conditions of the anus, paralytic ileus and in terminal stages of pregnancy in cows.

5- Alimentary Tract Hemorrhage:

 **Hemorrhage into the stomach or intestine is a common occurrence in farm animals.**

 **The main causes include the following:**

- ✓ Gastric or abomasal (rarely duodenal) ulcers
- ✓ Severe hemorrhagic enteritis
- ✓ Structural lesions of the intestinal wall, e.g., Neoplasia
- ✓ Infestation with blood-sucking nematodes, e.g., bunostomiasis
- ✓ Local vascular engorgement or obstruction as in intussusception and verminous thrombosis.
- ✓ **Hemorrhage into the stomach** results in the formation of **acid hematin**, which makes vomitus a dark brown color like coffee grounds, and feces have a black or very dark brown, tarry appearance (**melen**).
- ✓ The change in appearance of the feces caused by hemorrhage into the intestine varies with the level at which the hemorrhage occurs.
- ✓ If the blood originates in the **small intestine**, the feces may be **brown-black**, but if it originates in the **colon or cecum**, the blood is unchanged and gives the feces an **even red color**.



- ✓ Hemorrhage into the **lower colon and rectum** may cause no present of feces or consisting **clots of whole blood (hematochezia)**.

6- Abdominal Pain:

The pain associated with diseases of the abdominal viscera. The manifestations of abdominal pain vary with the species, horses particularly sensitive known as **colic**.

+ Common causes of alimentary tract pain:

In Horses

- **Acute pain(colic):** All causes of intestinal obstruction, gastric dilatation, enteritis generally, acute colitis, rarely salmonellosis.
- **Subacute pain(colic):** Thromboembolic colic, impaction of the large intestine, ileal hypertrophy and worm infestation.

In Cattle

- **Acute pain:** Intestinal obstruction, especially by phytobezoars.
- **Subacute pain:** Traumatic reticuloperitonitis and peritonitis generally, volvulus syndromes.

+ Pain signs

+ in horse include:

- **Acute pain:** Pawing, flank-watching, rolling.
- **Subacute pain:** Lesser degree of flank-watching, often excessive pawing, lying down frequently without rolling, stretching out as if to urinate, males may extrude the penis, walking backward, dog-sitting posture, lying on back.
- **Peritoneal pain:** Rigidity of the abdominal wall, pain on palpation.

+ Signs in Cattle

- ✓ **Acute pain:** arching of back with treading of the hind feet, lying down (rolling is uncommon), calves will lie down and bellow with severe abdominal pain, as in abomasal torsion.
- ✓ **Subacute pain:** including peritonea pain: Back arched upward, grunting on walking or lying down, grunting on deep palpation of the abdomen, immobility and grinding of teeth.

+ Tenesmus

Tenesmus, or persistent straining, is common in many diseases of the organs of the pelvic cavity; therefore, it is not necessarily a diagnostic sign of disease in the lower alimentary tract. It is sometimes associated with frequent defecation caused by neurologic stimulation of peristalsis.

Common causes of tenesmus are listed by species in the following sections.






Cattle

- ✓ Lower alimentary tract disease, e.g., colitis and proctitis caused by Coccidiosis.
- ✓ Genital tract disease, e.g., severe vaginitis, retained placenta.
- ✓ Estrogen toxicity in steers, e.g., estrogen implantation, fusariotoxicosis.
- ✓ Lower spinal cord lesions: spinal cord abscess, rabies.
- ✓ Idiopathic.

Horses

- Tenesmus does not usually occur except during parturition.

7- Abdominal Distension:

-  Distension of the abdomen is a common manifestation of disease of the alimentary tract and some events. Generally, abdominal distension associated with the alimentary tract is caused by **distension of viscera** with **gas** or **fluid**.
-  Abdominal distension can be **symmetric**, **asymmetric**, or more pronounced **dorsally or ventrally on one or both sides**.
-  **Determination of the cause of the distension** requires careful examination of the abdomen by Inspection, Palpation, Percussion, Auscultation, Rectal palpation, Ultrasonography and C.T scan technique.

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References:

Constable PD, Hinchcliff KW, Done SH, et al. (2017). Veterinary Medicine: A Textbook of the Diseases of Cattle,