



**Course; Medicine I**

**For**

**Fourth year students**

**Subject Diseases of simple stomach**

**Lecture: Colic in horses**

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**2023**

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- **Aim**

- Learn the colic in horses

- **Objectives**

- Knew colic

- Learn causes and pathogenesis of colic

- Knew clinical signs of colic

- Learn diagnosis and prognostication of Colic

- Make treatment and control in colic

# Flipped classroom الصف المعكوس

**before ;**

- Video clips and quizzes

• قبل

**during the lecture:**

- Questions
- Discussion
- Clarify unclear points

• اثناء

**after lecture**

- test

• بعد

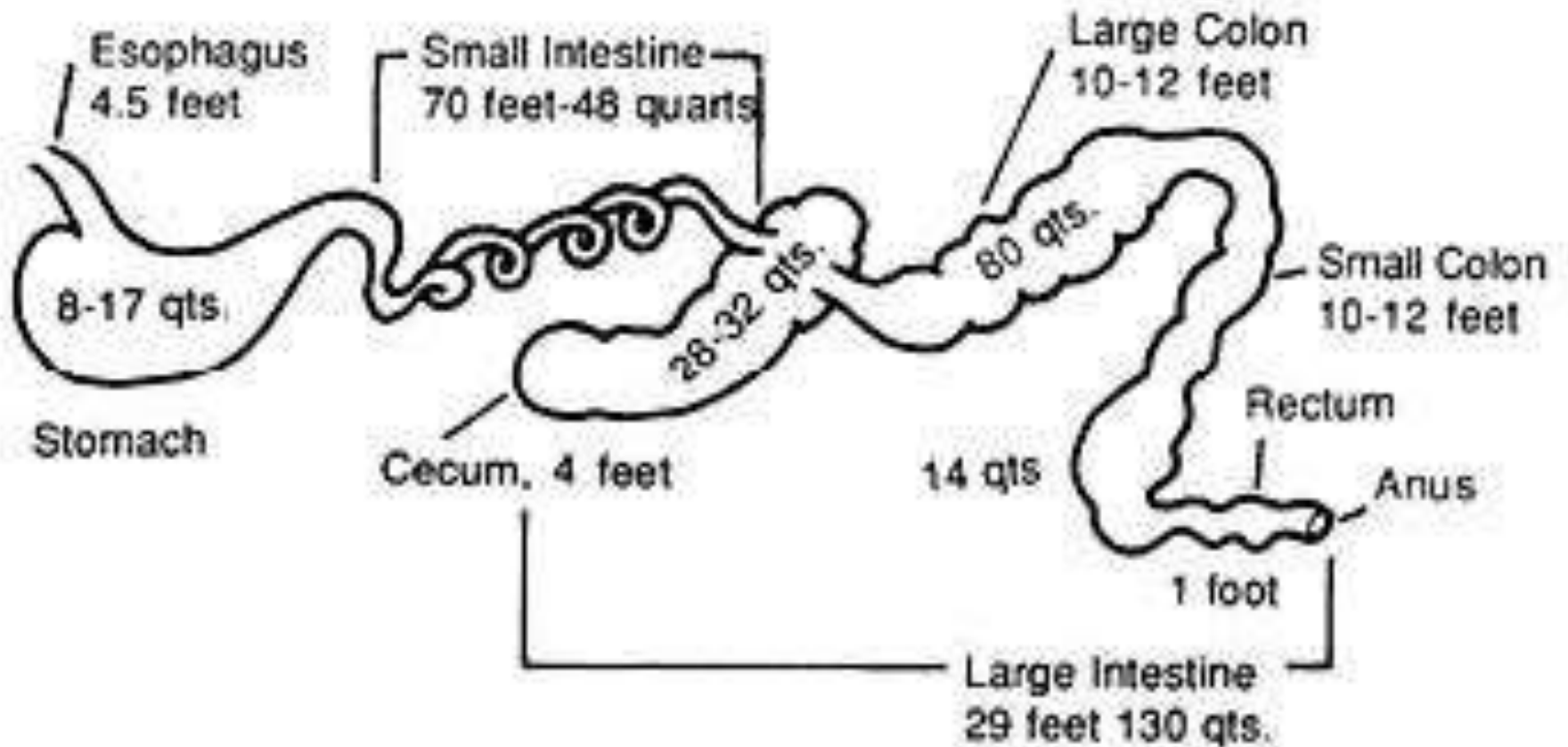
## **Outline**

- **Definition**
- **Etiology**
- **Duration**
- **Epidemiology**
- **Pathogenesis**
- **Clinical singses**
- **Clinical pathology**
- **Diagnosis**
- **Treatment**
- **Prognistication**
- **Control**

# Equine colic;

- Is a symptom in which indicate **sever abdominal pain** of horses.
  1. True colic; arising in the stomach and intestine
  2. False colic; due to affection other than GIT such as urinary system.

# feed back



The Digestive System of the Horse

# Etiology (**types**);

- Obstructive
- Obstructive and strangulation
- Non strangulating infarctive
- Inflammatory (peritonitis, enteritis)
- excessive gas accumulation in the intestine (gas colic)
- ulceration of the gastrointestinal mucosa



## duration (**types**);

- Acute <24-36 hours
- Chronic >24-36 hours
- Recurrent multiple episodes by period more than 2 days of normality

## **Epidemiology;**

- Incidence 2-30 % per year
- Mortality 0.5-0.7 % per year
- Case fatality rate 7-13%
- In certain diseases ; meconium impaction

# Pathogenesis;

- **Severity of disease magnitude of their change**
- **Pain; attributed to:**
  - **distention of GIT**
  - **stimulation of stretch receptors in the bowel wall and mesentery,**
  - **inflammation and irritation of bowel.**

- **Impaired GIT function , alter motility, or absorptive function.**
- **Impairment of GIT barrier function of mucosa.**
- **Ischemia of intestinal wall cause loss of barrier and may become lethal due to endotoxemia.**

# Clinical signs

# Clinical signs;

## Early

- Restlessness
- frequent urination
- Agitation
- flank watching, flank biting,



- pawing,
- kicking at the abdomen
- frequent rolling.



## Most sever

- **Saw-horse** Posture , horse standing stretched out with forefeet more cranial and the hind feet more caudal.





- some horses lie down on their back with their legs on air suggesting a need to relieve tension on the mesentery.



-Sweating associated with severe abdominal pain.



## **Other clinical findings**

- **On auscultation , continuous loud borborygmi.**
- **normal gut sounds are absent and replaced by tympanitic sounds.**
- **Projectile vomiting or regurgitation of intestinal contents**

# Retained meconium



- **Tachycardia is common,**
- **Pulls rat**
  - **40-60\min miner lesion,**
  - **-80\min. major lesion,**
  - **over 100\min poor prognosis.**
- **Arterial blood pressure ,**
  - **below 80 mmHg in critical situation and then shock**
  - **in sever pain up to 250 mmHg**
- **Respiratory rate is variable ,**
  - **80\min during sever pain**

**-CRT more than 2 seconds .**



- Pale dry mucous membrane**
- Terminal stage of disease developed of toxic line of the gingival margin of the gum .**
- cool extremities.**

**-rupture of stomach or intestine occurs and pain disappear suddenly.**

**-the horse become quit and immobile.**

**Such as dog setting position**





# Clinical pathology

- **Hemoconcentration( high PCV)**
- **azotemia, and metabolic acidosis**
- **Peritoneal fluid with increased protein and leukocytes**
- **Hyperkalemia in severe acidosis**
- **Hypokalemia in long standing colic**

# Diagnosis

- **Signs of pain with elevated heart rate.**
- **reflux through nasogastric tube .**
- **Rectal palpation (blockage or impaction of large colon, small intestine, displacement ...)**
- **Peritoneal fluid**
- **Ultrasonography**
  - **ileocecal intussusption,**
  - **gastric distention, ...**



# Treatment



# Treatment

- **Analgesia** (flunixin meglumine, **pethidine, dipyrrone, detomidin...**)
- **Gas colic** : **buscoban**
- **Correction of fluid**
- **Acid base and electrolytes monitoring**
- **Nasogastric tube to improve distended stomach**
- **Lubricants** ( **dioctyle sodium sulphosuccinate, physostigmine and arecoline**)
- **Psyllium**: given by nasogastric tube to **treat sand colic**
- **Surgical correction**





# Prognostication;

- Arterial systolic pressure
- CRT
- Hematocrit pcv
- **The prognosis**
  - **excellent** in hypermotility
  - **good** in impaction
  - **bad** if no response to analgesia
  - **very bad** in intestinal emergency.

# Control

- Parasite
- Ensure adequate roughage in the diet



# Thanks



# Quiz

