



WorldHorseWelfare
the new name for the ILPH

Gastrointestinal Emergencies

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Colic

- Owners tend to be tense and emotional
- Potentially dangerous situation
- Be methodical
- Be precise











A photograph showing a horse lying on its side on a wooden plank floor in what appears to be a veterinary or clinical setting. The horse is the central focus, lying on its side with its head down. In the background, several people are standing, their legs and feet visible, suggesting a group of observers or medical staff. The floor is made of light-colored wooden planks. The overall scene suggests a medical or emergency situation involving the horse.

Importance of collapsible stocks



Stepwise examination

1. Pain
2. Cardiovascular parameters
3. Rectal examination
4. *Paracentesis abdominis*
5. Nasogastric reflux



PAIN

- Analgesic significance
- Spasmolytics
- NSAIDs: phenylbutazone, flunixin
ketofen
- Alpha-two agonists (phenothiazines)
- Opioids e.g. butorphanol



CARDIOVASCULAR

- Mucous membrane colour
- Capillary refill time







- Heart rate
- Pulse characteristic
- Periphery temperature

Skin tent and dehydration





Abdominal Auscultation

- 4 Quadrants
- Boarding
- Rectal Temperature

X

X

Rectal examination

- Good stocks
- Restraint: twitch
- Alpha two agonists or hyoscine





Possible Rectal findings

- Large intestinal distension/torsion
- 'Nephrosplenic' entrapment
- Small intestinal distension
- Mesenteric oedema
- Peritonitis

Paracentesis abdominis









Nasogastric intubation

- < 2 – 5 litres not significant
- > 5 litres significant
- Anterior/proximal enteritis
- Surgery



Auxiliary tests

1. Ultrasonography
2. Radiography
3. Endoscopy





Ultrasound findings

- Distended small intestine
± cause
- Evaluation of nephrosplenic space
- Thickened bowel (SI and LI)
- Peritoneal fluid consistency
- Stomach size/position



GI Differentials

- Impaction – large colon, meconium in foals, stomach
- Gastric ulceration
- Equine grass sickness
- Peritonitis
- Enteritis
- Neoplasia – including lymphosarcoma, gastric carcinoma
- Adhesions



Other differentials

- Laminitis
- Parturition
- Hepato-biliary disease
- Cystitis / urolithiasis
- Ovarian tumour / haematoma
- Ruptured bladder
- Rhabdomyolysis



Neurological disease

- Hepatic encephalopathy
- Herpes virus (neurologic bladder)
- Rabies
- Horses may appear uncomfortable, agitated, lethargic, tend to lie down, psychomotor seizures.
- Consider whether actions are voluntary



SUMMARY

- Most colicky horses have colic
- Remember 5 routes to surgery
- Consider alternatives
- Don't rush to operate; observe in a box





The importance of abdominocentesis

- Surgical vs. medical colic?
- Diagnosis:
 - Peritonitis
 - Haemoperitoneum
 - Uroperitoneum
 - Abdominal neoplasia





Needle Technique

- Perform rectal first
- Needles: 21g x 2"

Spinal

- Collection tubes:
 - Cytology **EDTA**
 - Culture **Plain tube**





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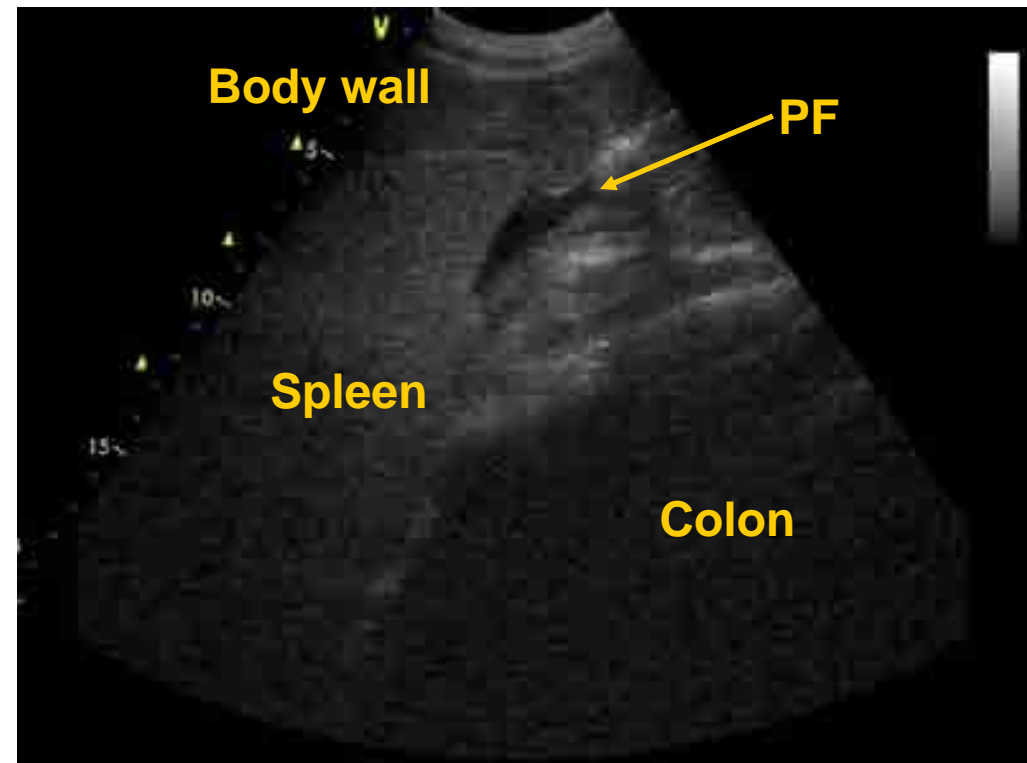
Use of teat cannula





Use of Ultrasound

- Foals
- Late pregnant mares
- Heavy or distended viscus on ventral abdominal wall

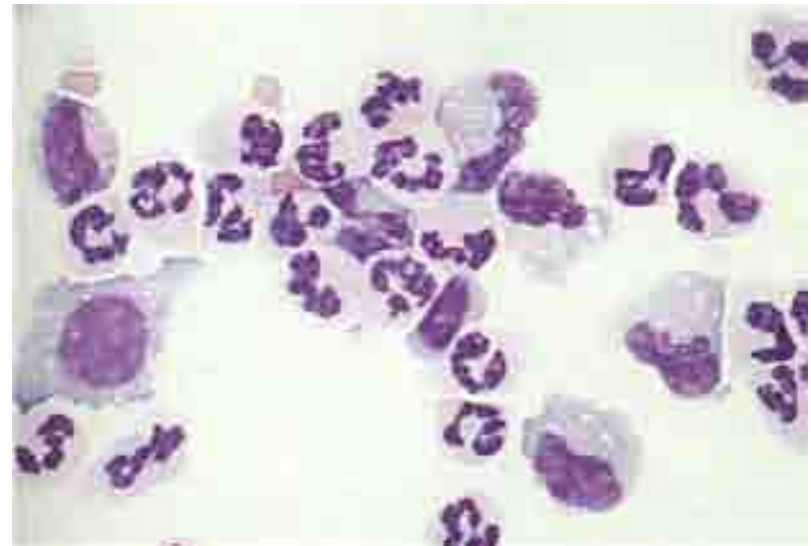


5 – 10MHz probe



Analysis of fluid samples

- Normal fluid:
 - Odourless, non-turbid, clear to pale yellow
 - Total cell count $< 5.0 \times 10^9/l$
 - Total protein $< 20g/l$ (usually $< 10g/l$)
 - 2:1 non-degenerative neuts:macs





Contaminated samples

- Blood
 - Iatrogenic vessel damage
 - Splenic tap
- Enterocentesis





Effects of Disease

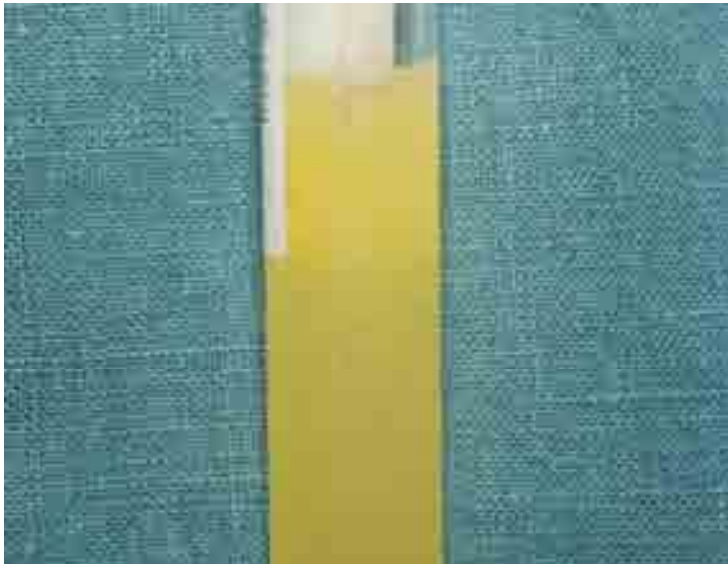
- Increased turbidity due to:
 - Increased protein or white blood cells
- Changes in colour (gold → orange → red):
 - Leakage of red blood cells





Simple obstruction

- Clear to turbid, pale yellow
- Increase in total protein
- White cell count normal





Strangulating obstruction

- Serosanguinous, turbid
- Moderate to marked \uparrow in total protein and white cell count (95% neuts)





Peritonitis

- Thick, turbid, dark yellow to orange
- Increased total protein + high WCC
- Intra- plus extra-cellular bacteria





Peritonitis

- Most horses dull, depressed
- May show mild colic signs
- If long standing – weight loss





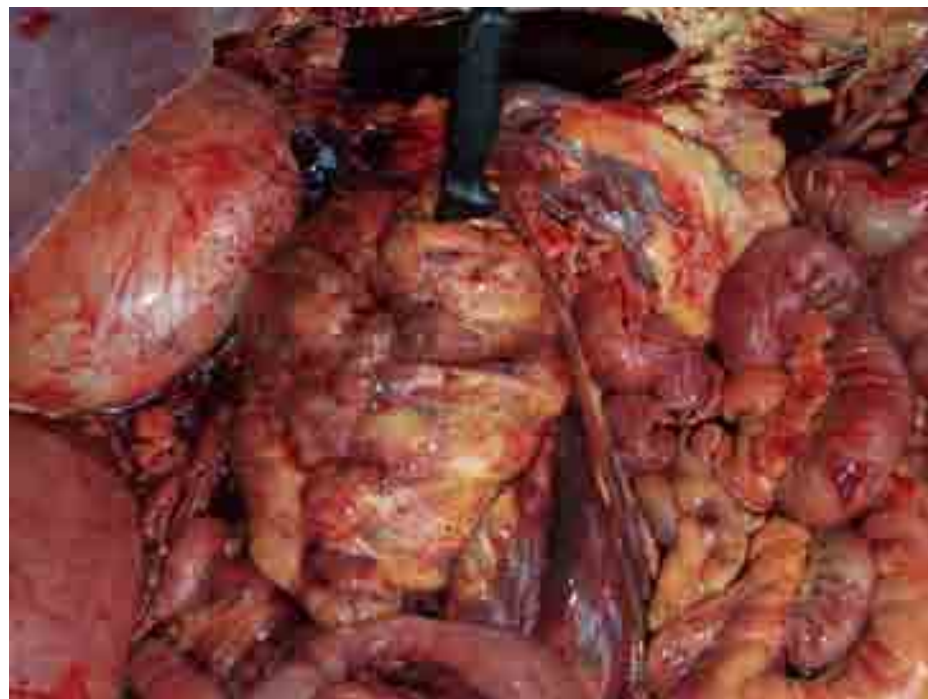
Peritonitis - Causes

- Idiopathic
- Abdominal Abscess
- Penetrating injury
- Bowel leakage
- Abdominal neoplasia





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Penetrating Injury

- Determine whether abdominal cavity involved
 - Rectal examination
 - Abdominocentesis
- If not
 - Remove and treat as an open wound
- If involved
 - Remove enough of a portion to allow safe anaesthesia
 - Remove under GA and assess abdomen
 - ?euthanasia

