VET 433B GI Surgery Learning Objectives

Describe the layers of the stomach and small intestines and suture techniques for closure of incisions into these organs.

- Layers of the stomach (outside to inside)
  - Serosa
  - Muscularis
  - Submucosa HOLDING LAYER
  - Mucosa
- Two-layer gastric closure
  - Mucosa and submucosa
    - Simple interrupted
    - Simple continuous
  - Muscularis and serosa
    - Inverting pattern
- Small/Large intestinal closure
  - Single-layer appositional *must include submucosa (holding layer)
    - Simple interrupted and simple continuous are standard
    - Inverting decreased luminal diameter
    - Everting suture patterns decrease the lumen size and increase adhesion formation
  - Never use a cutting needle in the GIT

Understand the methods used for assessment of gastrointestinal viability

1. Color
2. Consistency
3. Motility
4. Bleeding/Perfusion

*Surface oximetry or Fluorescein infusion have been tried but are not clinically practical

*Near-infrared fluorescence imaging with fluorophores is showing promise

Describe three methods for dealing with luminal disparity after intestinal resection

- Place suture at wider intervals on larger side
- Transect the side with smaller diameter obliquely
- Spatulate smaller side
- Stapled anastomosis also deals with luminal disparity effectively

Describe the adverse factors affecting normal healing of the large intestine

- Large intestinal anastomoses dehiscence > Small intestinal anastomoses dehiscence
- Colonic wound strength returns more slowly than SI
    - 30% normal at 48 hours
    - 75% or normal at 4 months
- Colonic wound healing is compromised by poorer blood supply in the mid rectum
    - Vasa recta that emanate from the ileocolic and colic arteries and veins segmentally feed the colon
    - Distal colon is supplied by the cranial rectal artery which branches from the caudal mesenteric artery
- Large anaerobic load present
- Tension leads to reduced blood supply and oxygen tension

Describe the indications for colorectal resection in cats and dogs

- Colonic neoplasia
- Feline megacolon
- Rectal neoplasia
- Colonic foreign bodies can usually be milked out of the rectum
- NO need for full-thickness colonic biopsy DON'T DO IT

Describe the diagnostic approach to rectal masses in dogs

- Lesions close to anocutaneous junction
    - FNA, core biopsy, incisional biopsy
    - Might require mucosal eversion
- Proximal lesions
    - Proctoscopy or colonoscopy
    - Superficial samples obtained
    - 30-36% discrepancy between colonoscopic and definitive resection samples in histopathological result
- LN biopsy
    - Ultrasound-guided FNA if enlarged on U/S or CT
- Colotomy for colorectal junction tumors
    - NOT Recommended

Know common complications of anal sac surgery

- Infection
- Fecal Incontinence
- Recurrence