COLON INJURIES: 5 Things to Remember
Keep Your Friends Close, But Your Enemies Closer

Know the Game:
- Have a plan (and a back up)
- Blunt vs Penetrating
- Destructive vs Non-Destructive

Know your Patient:
- Physiology
- Extent of other injuries
# 1: DON’T BE HAD BY THE BLIND SPOTS

- Colonic Hematomas
  - Explore ALL hematomas
  - Shotgun pellets and ice picks are the worst
  - Gentle manual compression

- Mesenteric Border
  - Decreased visualization
  - Caution exploring → Devascularize
BLIND SPOTS

- Posterior Wall of Colon
  - Zone of injury
  - Transverse colon
- Splenic Flexure
  - Obese
- Extraperitoneal rectum
  - Pelvis fx
  - Straddle injuries
  - Gluteal GSW

From: Masters of Surgery
#2 TO RESECT or REPAIR: That is the Question

NON-DESTRUCTIVE INJURIES

- Less than 50% bowel wall
- Not de-vascularized
- Primary repair
- No difference in sepsis complications
DESTRUCTIVE INJURIES

- Resect and Anastamosis vs Diversion
- WWII – Colostomy mandated
- Studies: Low velocity, civilian penetrating
- Caution w/ high velocity or blunt injuries
- Complications: 20 – 40%
RISK FACTORS

- PATI >25
- 6+ pRBC
- >6 hrs to surgery
- Gross contamination
- Hypotension: admission or intra-op
- Duration surgery >4hr
- Single agent antibiotic prophylaxis
- Co-morbidities
Resect and Anastamosis

- HD stable without evidence of shock
- No underlying disease
- No peritonitis
- Minimal associated injury
  - PATI < 25, ISS < 25
SUTURE vs. STAPLE?

- Multi-center
  - 2 trials
  - Small and large bowel
  - Leak rate greater in stapled
- Multi-center
  - Penetrating colon injury requiring resection
  - No difference in leak rate
#3 ANASTAMOSIS IS NOT PART OF DAMAGE CONTROL

- Know the physiology
- Control contamination
- Avoid colostomy formation
- Anastamosis at take back?
CONTAMINATION CONTROL

- Over sew
- Staple
- Staple mesentery
- Umbilical tape

From Top Knife 2005
#4 DON’T FORGET THE ANUS

ANUS

- DRE, anoscopy
- Vaginal and GU
- Debride and drain
- Repair if minor
- Preserve sphincter tissue
- Tag w/ non-absorbable suture
#4 DON’T FORGET THE RECTUM

- Presacral drains ⇒ Out
- Non-destructive intraperitoneal rectum ⇒ Repair
- Extraperitoneal rectum ⇒ Divert
- Selective diversion

From Colon and Rectal Surgery 2005
Stoma Related Complications
Incidence: 6 – 60%

- Stenosis or retraction
- Fistula
- Dermatitis, Candida infections
- Prolapse
- Parastomal hernia
- Bleeding
STOMA PROBLEMS

From Colon and Rectal Surgery 2005
MORBIDITY OF TAKE DOWN

- Complication rate: 25 – 40%
- Major
  - MI
  - Respiratory failure
- Minor
  - Ileus
  - UTI
  - Hernia, wound complication
SUMMARY

1. DON’T BE HAD BY THE BLIND SPOTS
2. REPAIR, RESECT, OR DIVERT – Have a plan
3. DAMAGE CONTROL IS EXACTLY THAT
4. REMEMBER THE ANUS AND RECTUM
5. STOMAS HAVE A FUNCTION AND MORBIDITY