Bruising, Bleeding, and Bellyaches

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- Objectives
  - Abdominal A&P
  - Abdominal Wall Injuries
  - Internal Abdominal Injuries
  - Treatment

- Introduction
  - Implications
  - Outcome
  - Blunt
  - Penetrating
  - Management
  - Prevention

- Overview
  - One of body's largest cavities
  - Multiple vital organs
  - Large volumes of blood can be lost before signs and symptoms manifest
  - Must be alert for signs of injury

Abdominal Assessment

• Anatomy
  o Peritoneum
  o Retroperitoneal	

• Case One
  o Single vehicle collision
  o Vehicle has struck a fence
  o Witness sees one occupant in car
  o 2:30 am Saturday morning
  o Weather: clear and warm	

• Management
  o Presentation
  o Management
  o Injuries
  o Outcome	

• Case Two
  o 41 year old
  o Right lower quadrant
  o Presentation	

• Abdominal Hernia	

• Blunt Trauma
  o Tenderness and guarding
  o History only
  o Findings
  o Index of suspicion
  o Serial evaluations
  o Shock?	

• Complications
  o Hollow organs
  ▪ Rupture
  ▪ Peritonitis
  ▪ Rebound tenderness
  ▪ Rigid abdomen
  ▪ Sepsis
  ▪ Digestion
  o Solid organs
  ▪ Fracture
  ▪ Hemorrhage
  ▪ Containment
  ▪ Distended ABD
  ▪ Hypovolemia	

• Palpation	

• Other Findings
  o Cullen's sign
  o Grey Turners sign
	_____
	_____
	_____
	_____
	_____
	_____
	_____
	_____

• Case Three
  o 28 yo male
  o Sudden deceleration
  o Tenderness
  o Distension
  o Tachycardia
  o Pale and cool
  o Normotensive
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• Spleen
  o Left upper quadrant
  o Common
  o Hemorrhage
  o Radiated pain
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• Liver
  o Right upper quadrant
  o Common
  o Hemorrhage
  o Radiated pain
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• Intestines
  o Blunt
  o Penetrating
  o Location
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• Evisceration	_____ _____ _____ _____ _____ _____ _____ _____
• Case Four o Self inflicted wound	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Mesenteric Injuries	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

• Diaphragmatic Rupture
  o Incidence
  o Generally a left side event
  o Co-morbidity
  o Mortality
  o Mechanism
  o S&S
  o Treatment
 	
• Presentation
  o Subtle or dramatic
  o Asymptomatic or critical
 	
• Comorbidity
  o Associated injuries
  o Medications
  o Alcohol
 	
• Assessment
  o Redness
  o Tenderness
  o Guarding
  o Echymosis
  o Seat belt sign
  o Distension
  o Rigidity
  o Vitals	

• Critical Findings
  o Altered mental status
  o Airway compromise
  o Respiratory distress
  o Peritonitis
  o Shock
 	
• Treatment
  o Recognition!
  o Airway
  o Breathing
  o Circulation
  o Pain control?
  o Reevaluate often
  o Transport
 	
• Summary
  o Abdominal trauma can be life threatening
  o Prompt recognition and treatment can make a significant difference in patient outcome
  o Maintain a high index of suspicion for injuries
  o Re-evaluate often	