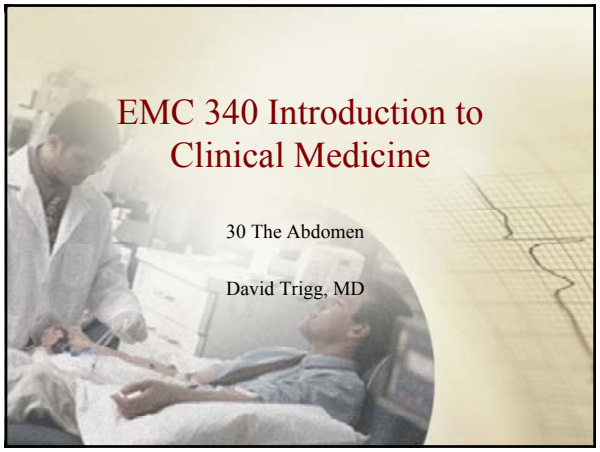
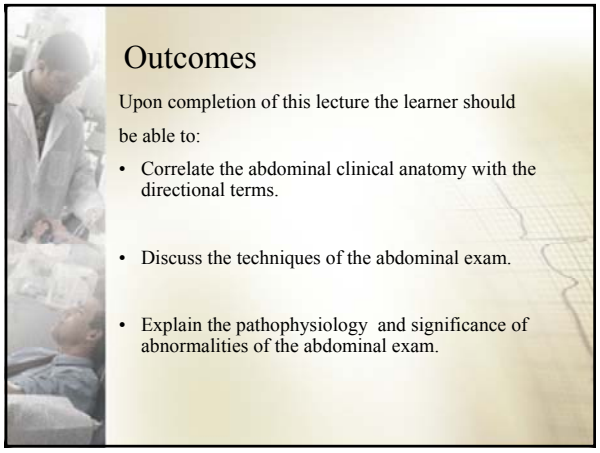


EMC 340 Introduction to Clinical Medicine

30 The Abdomen

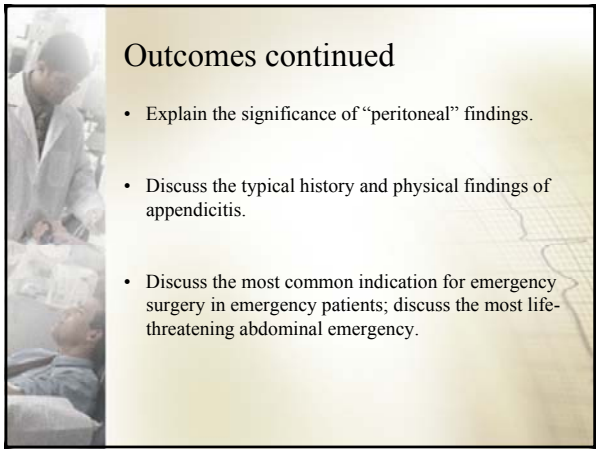
David Trigg, MD



Outcomes

Upon completion of this lecture the learner should be able to:

- Correlate the abdominal clinical anatomy with the directional terms.
- Discuss the techniques of the abdominal exam.
- Explain the pathophysiology and significance of abnormalities of the abdominal exam.

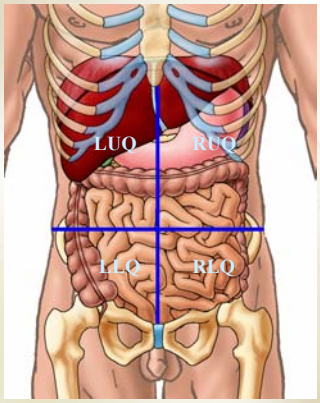


Outcomes continued

- Explain the significance of "peritoneal" findings.
- Discuss the typical history and physical findings of appendicitis.
- Discuss the most common indication for emergency surgery in emergency patients; discuss the most life-threatening abdominal emergency.

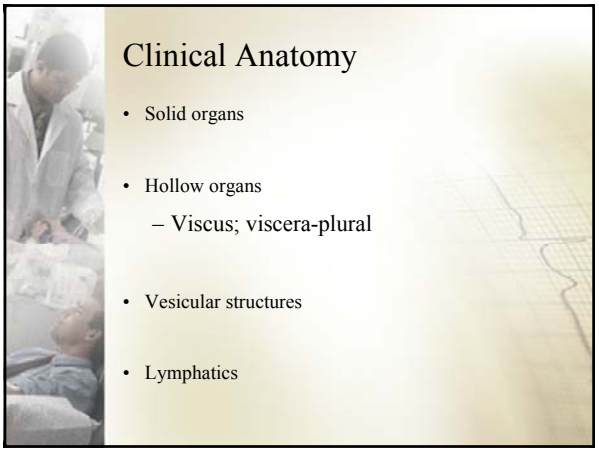
Anatomy

- Surface anatomy
  - Bones, muscles, soft tissues (fat)
- Conventional approach
  - Four quadrants
    - RUQ - liver edge
    - LUQ - spleen
    - LLQ - sigmoid colon
    - RLQ - junction of colon and ileus



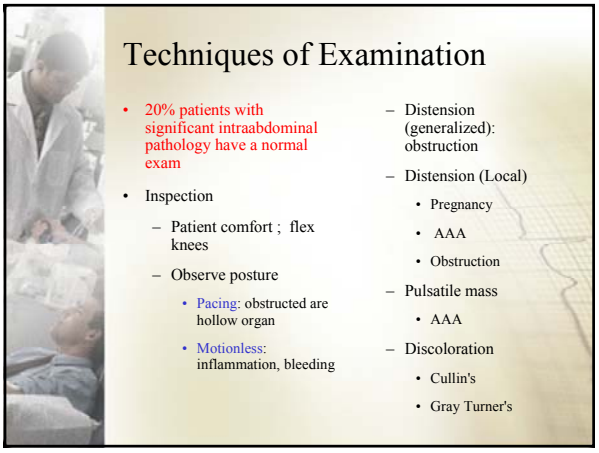
Anatomy, continued

- Suprapubic - bladder
- Epigastric - stomach
- Peritoneal cavity
- Retroperitoneal space



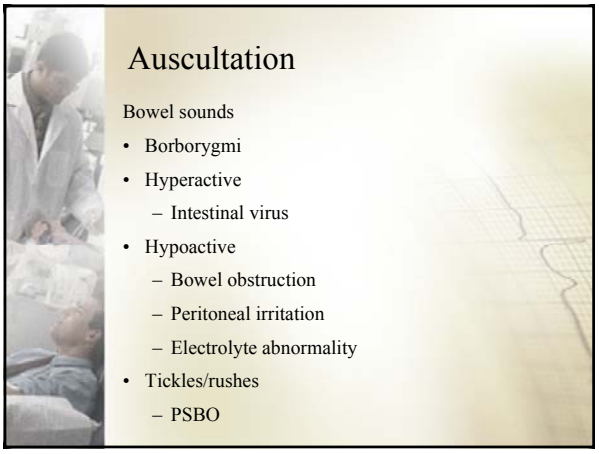
Clinical Anatomy

- Solid organs
- Hollow organs
  - Viscus; viscera-plural
- Vesicular structures
- Lymphatics



Techniques of Examination

- 20% patients with significant intraabdominal pathology have a normal exam
- Inspection
  - Patient comfort ; flex knees
  - Observe posture
    - Pacing: obstructed are hollow organ
    - Motionless: inflammation, bleeding
  - Distension (generalized): obstruction
  - Distension (Local)
    - Pregnancy
    - AAA
    - Obstruction
  - Pulsatile mass
    - AAA
  - Discoloration
    - Cullin's
    - Gray Turner's



Auscultation

Bowel sounds

- Borborygmi
- Hyperactive
  - Intestinal virus
- Hypoactive
  - Bowel obstruction
  - Peritoneal irritation
  - Electrolyte abnormality
- Tickles/rushes
  - PSBO

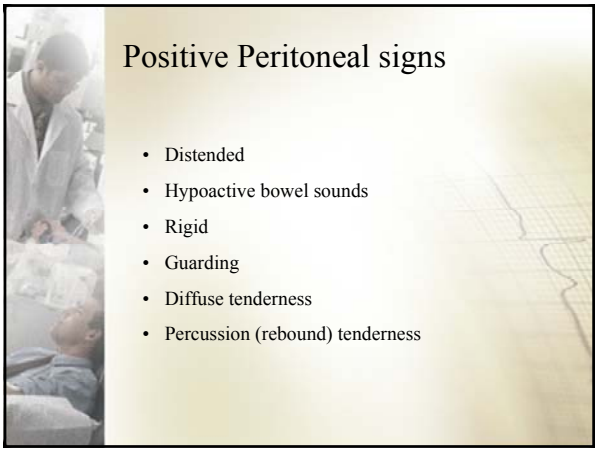
Palpation

- Light
  - Guarding
  - Rigidity
  - Tenderness
- Deep
  - Organomegaly (enlargement of liver or spleen)
  - Masses
    - AAA
    - Tumor
    - Gravid (pregnant) uterus

Palpation

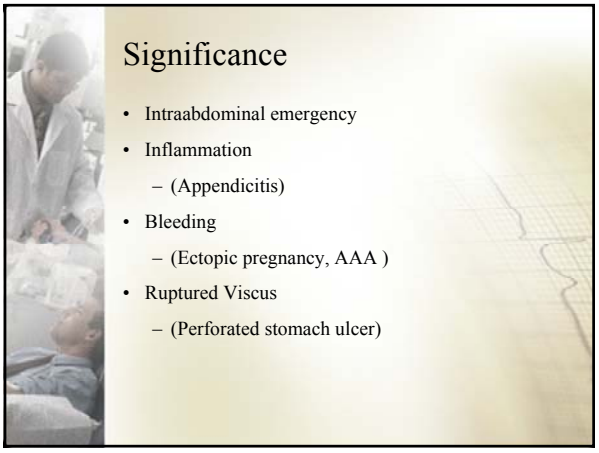
Percussion

- Organomegaly
- Peritoneal signs
  - "Bump," jostle, percussive, or gait tenderness
  - Preferable to rebound maneuver
- Costovertebral angle tenderness (CVA)
  - Pyelonephritis
  - Shifting dullness - cirrhosis
  - Ascites



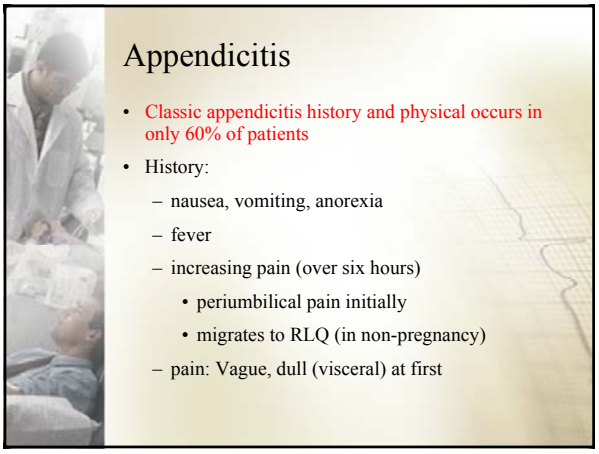
Positive Peritoneal signs

- Distended
- Hypoactive bowel sounds
- Rigid
- Guarding
- Diffuse tenderness
- Percussion (rebound) tenderness



Significance

- Intraabdominal emergency
- Inflammation
  - (Appendicitis)
- Bleeding
  - (Ectopic pregnancy, AAA)
- Ruptured Viscus
  - (Perforated stomach ulcer)



Appendicitis

- Classic appendicitis history and physical occurs in only 60% of patients
- History:
  - nausea, vomiting, anorexia
  - fever
  - increasing pain (over six hours)
    - periumbilical pain initially
    - migrates to RLQ (in non-pregnancy)
  - pain: Vague, dull (visceral) at first

Appendicitis Physical Exam

- Vital Signs:
  - Fever, tachycardia, tachypnea
- Abdomen:
  - Distension
  - Bowel sounds hypoactive or absent
  - Palpation: Rigid, tender, guarding
- Percussion: pain with cough or “bump”
- Other Appendicitis signs
  - Referred rebound (Rovsing's)
  - Hypersensitive skin
  - Leg: Psoas, obturator

Differentiation of Abd Pain

- RUQ
  - GB (cholecystitis)
- LUQ
  - Spleen (Mono)
- Epigastric
  - MI
  - Ulcer
  - Pancreatitis
- RLQ
  - Appendicitis
- LLQ
  - Diverticulitis

Summary

We have discussed:

- Abdominal clinical anatomy.
- The techniques of the abdominal exam.
- The pathophysiology and significance of abnormalities of the abdominal exam, such as “peritoneal” signs.
- The classical history and physical findings of appendicitis, small bowel obstruction, and intraabdominal emergencies.