Abdominal wall, superficial and muscular structures

(Effective February 2007)
(1%-5%)

Anatomy

1. Abdominal Wall
   - Anterior Abdominal Muscles
   - External oblique
   - Internal oblique
   - Transversus abdominus
   - Rectus abdominus
   - Serratus anterior
2. External Inguinal Ring
3. Linea Alba
4. Rectus Sheath

Various abdominal spaces

Breast

Indication for a breast ultrasound

• Differentiation of cysts from solid masses
• Evaluation of a palpable mass that is not visible on the mammogram
• Assessment of a mass that is inaccessible to mammography due to location
• Evaluation of a young person with a palpable mass

Breast

• 96-100% accurate for distinguishing a simple cyst from a solid lesion
• Should be at least a 10.0 MHz linear array transducer
• What are the best positions for imaging various regions of the breast?
  – ex LPO for a Rt. Lateral breast mass
• What is radial and antiradial?

Breast

• Imaging criteria for malignancy
  – Taller than wide
  – Spiculation
  – Angular margins
  – Marked hypoechoic solid lesion
• Imaging criteria for cyst
  – Smooth walls, sharp anterior and posterior borders, no internal echos, posterior shadowing
Urachal Cyst
- caused by incomplete regression of the urachus during fetal development
- Types: patent urachus, urachal diverticulum, urachal sinus, urachal cyst
Sonographic appearance
- mass between the umbilicus and the bladder
- Cystic
- small or giant multiseptations extending into the upper abdomen - mixed echogenicity

Bakers Cyst
- Located posterior to knee
- Deep to vascular structures
- Communicates with knee joint

- Anterior wall seroma
  - Post surgery

- Air in abscess
  - Drug abuser

- Breast stitch abscess

- Silicone filled lymphnode
<table>
<thead>
<tr>
<th>Hematoma</th>
<th>Vessels</th>
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<tr>
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<td>(including iatrogenic Vascular Injuries)</td>
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<table>
<thead>
<tr>
<th>Pseudoaneurysm</th>
<th>Temporal artery pseudoaneurysm</th>
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<tr>
<th>Musculoskeletal</th>
<th>Hernia</th>
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<tbody>
<tr>
<td>including Normal and Ruptured tendons, such as Patellar and Achilles tendons</td>
<td>Various types</td>
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<tr>
<td></td>
<td>• Inguinal</td>
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<td>• Femoral</td>
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<td></td>
<td>• Umbilical</td>
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<td>• Spigmalian</td>
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<td>• Incisional</td>
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Hernia appearance

- Can appear as a peristalsing bowel and may mimic a masses.
- May involve the omentum only.

Musculoskeletal

Foreign Bodies glass

- Patient hit tree > 1 month ago

- Toothpick in great toe

- Pt crawling on floor
  - Sewing needle

- Glass in forearm
  - Remove w ultrasound guidance
• Granuloma from bee stinger left in for 3 months

Non-echocardiography Chest
Pericardial Effusions

Non-echocardiography Chest
Pleural Effusions

Non-echocardiography Chest
Masses