Ultrasound – Abdomen Limited or Lower Extremity (If Groin) for Hernia Evaluation

PURPOSE:

To evaluate for hernias of the anterior abdominal wall or inguinal region.

SCOPE:

Applies to all ultrasound studies performed for the evaluation of abdominal or inguinal hernias at Imaging Services / Radiology

INDICATIONS:

- Signs (example: mass) or symptoms (examples: pain, fullness) associated with hernia
- Abnormal findings on other imaging studies
- Follow up known hernia

CONTRAINDICATIONS:

No absolute contraindications

EQUIPMENT:

Linear array transducers with a frequency range of 9-15 MHz and large field of view (5 cm). Linear, sector, or curvilinear transducers with a frequency range of 2-9 MHz may be required for appropriate penetration and resolution depending on patient’s body habitus.

PATIENT PREPARATION:

- None

EXAMINATION:

GENERAL GUIDELINES:

A complete examination includes evaluation of the region corresponding to the patient’s signs or symptoms.

EXAM INITIATION: AIDET

- Introduce yourself to the patient
- Verify patient identity using patient name and DOB
- Explain test
- Obtain patient history including symptoms. Enter and store data page
- Place patient in supine and/or standing position
TECHNICAL CONSIDERATIONS:

- Review any prior imaging, making note of associated abnormalities requiring evaluation.
- Images should be taken with and without Valsalva maneuver, with proper annotation.
- Images should be taken at area of interest in supine and standing position with proper annotation.
- Hernia sac and hernia neck should be documented with size measurements.
- Contents of the hernia sac (bowel, fluid, etc.) should be evaluated. For instance, detection of bowel gas and peristalsis indicate a bowel-containing hernia.
- Evaluated for reducibility, tenderness, and change in overlying skin color (erythema).
- Fat/omental herniation may appear indistinct from the surrounding subcutaneous fat. Higher frequency transducer and movement of fat during Valsalva can help discern the two.

DOCUMENTATION:

- Longitudinal images:
  - Representative images with measurements included if abnormal
  - For inguinal hernias:
    - Repeat in standing or upright position, if able

- Transverse images:
  - Representative images of the palpable or sonographic measurements included if abnormal
  - For inguinal hernias:
    - Identify internal iliac artery at origin with the external iliac artery.

- Identify spermatic cord

- Cine images:
  - Dynamic images during Valsalva showing hernia if positive.

PROCESSING:

- Review examination images and data
- Export all images to PACS
- Document relevant history and any study limitations in Primordial
- End Exam

REFERENCES:


REVISION HISTORY:
<table>
<thead>
<tr>
<th>SUBMITTED BY:</th>
<th>Christy Baez, RDMS, RVT</th>
<th>Title</th>
<th>Ultrasound Team Leader-Dallas</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVED BY:</td>
<td>Jeannie Kwon, M.D.</td>
<td>Title</td>
<td>Director of Ultrasound</td>
</tr>
<tr>
<td>APPROVAL DATE:</td>
<td>1/23/2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REVIEW DATE(S):</td>
<td>08/26/2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REVISION DATE(S):</td>
<td>2/4/2019</td>
<td>Brief</td>
<td>Summary:</td>
</tr>
</tbody>
</table>