

GROIN PSEUDOANEURYSM CHECK PROTOCOL

PURPOSE:

- To evaluate a site of recent arterial access for pseudoaneurysm or AV fistula.

INDICATIONS:

- Groin pain, swelling, hematoma or pulsatile mass following vascular access procedure.

EQUIPMENT:

- 3.5-10 MHz linear probe

PATIENT PREPARATION & ASSESSMENT:

- Introduce yourself to the patient.
- Verify patient identity via two patient identifiers (name and date of birth) per hospital policy.
- Explain the examination, its purpose and how long it will take.
- Answer any questions the patient may have regarding the examination.
- Obtain patient history including symptoms, signs, risk factors and other relevant history.

GENERAL GUIDELINES:

- Optimize equipment gain and display settings with respect to depth, dynamic range and focal zones while imaging vessels.
- Add color Doppler to supplement grayscale images with proper color scale to demonstrate areas of high flow and color aliasing.
- Set spectral Doppler gains to allow a spectral window and optimized to reduce artifacts.
- Cursor sample size will be small and positioned parallel to the vessel wall and/or direction of blood flow.
- A spectral Doppler angle of 45-60 degrees or less will be used to measure velocities. Note exceptions to these angles on the technologist worksheet.
- Send the measurements screenshot page if your machine is capable.
- Any deviations from the standard protocol and any limitations to the examination should be documented on the technologist worksheet for future reference and for repeatability in follow-up studies.
- Report preliminary critical findings to the referring clinician when appropriate (i.e. immediate medical attention may be warranted) and according to hospital policy.

DOCUMENTATION:

Grayscale Imaging

- Document transverse grayscale images of the following:
 - Common femoral artery and vein
 - Proximal femoral artery and vein

- Document longitudinal grayscale images of the following:
 - Common femoral artery and vein
 - Proximal femoral artery and vein

Color Doppler Imaging

- Document transverse color Doppler images of the following:
 - Common femoral artery and vein
 - Proximal femoral artery and vein
- Document longitudinal color Doppler images of the following:
 - Common femoral artery and vein
 - Proximal femoral artery and vein

Spectral Doppler Waveforms

- Document longitudinal spectral Doppler images of the following:
 - Common femoral artery – measure PSV
 - Proximal femoral artery – measure PSV
 - Common femoral vein – augment vein
 - Proximal femoral vein – augment vein

Pseudoaneurysm, Hematoma, AV Fistula

- If a pseudoaneurysm is present:
 - Measure the transverse and longitudinal dimensions of the pseudoaneurysm sac.
 - Measure the transverse dimensions of the pseudoaneurysm neck.
 - Document the pseudoaneurysm sac without and with Color Doppler.
 - Document the waveforms within the pseudoaneurysm sac and at the pseudoaneurysm neck with Spectral Doppler.
- If a hematoma is present:
 - Measure the transverse and longitudinal dimensions of the hematoma.
 - Document the hematoma without and with Color Doppler.
- If an arteriovenous fistula is present:
 - Measure the transverse and longitudinal dimensions of the arteriovenous connection.