

Ultrasonographic measurements of the right femoral vein cross-sectional area

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Abstract

Exclusion criteria: lower limb varices, history of leg surgery, trauma, infection, or thromboembolic events.

Ultrasound examinations are performed in B-mode technique, equipped with a linear broadband (7.5-14-MHz) transducer. The right femoral vein and the inguinal ligament are examined in a supine position. The inguinal ligament is identified along its longitudinal axis. The measurements levels are identified as follow:

- proximal level: 20 mm caudally to the inguinal ligament identified along the femoral artery imaged with US
- distal level: 20 mm caudally to the inguinal crease visually identified and along the femoral artery imaged with US

The cross-sectional area (CSA) of the right femoral vein is examined at both levels in transverse plane and is measured automatically after manual tracing of the vessel on a static image in three leg positions: abduction, abduction + external rotation, abduction + external rotation + 90° knee flexion/frog-leg. Attention must be taken to avoid any compression or displacement of the examined vein.

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