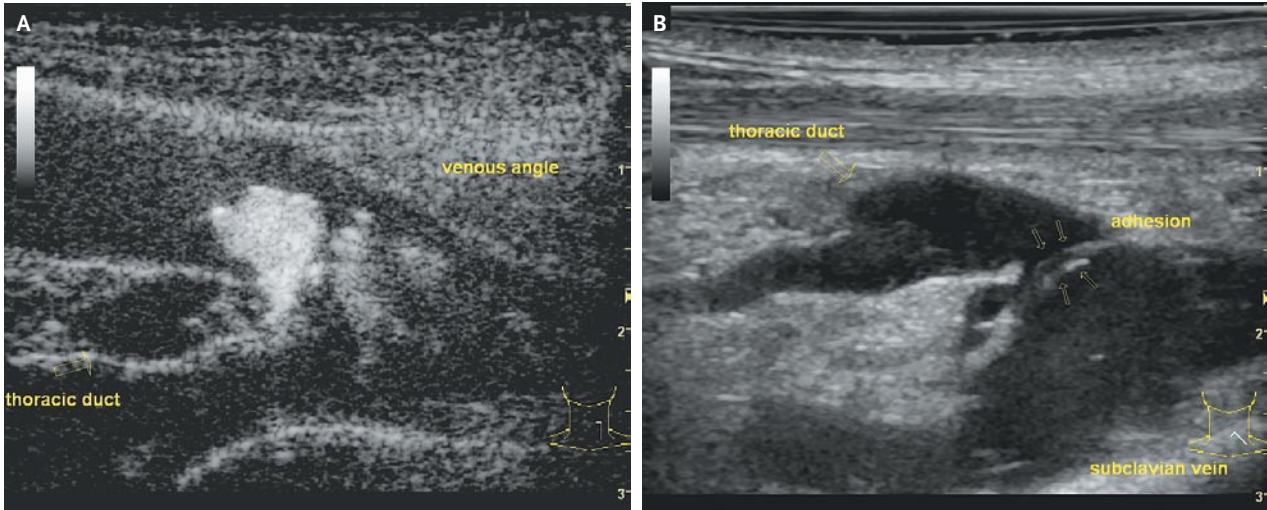


IMAGES IN CLINICAL MEDICINE

Ultrasound Imaging of the Thoracic Duct



Marcus Seeger, M.D.
Burkhard Bewig, M.D.

University Hospital
of Schleswig-Holstein
D-24105 Kiel, Germany

RECENT ADVANCES IN ULTRASOUND IMAGING ALLOW VISUALIZATION OF the cervical part of the thoracic duct. In Panel A and Video 1, ultrasound imaging conducted to evaluate the thyroid of a 65-year-old man shows the thoracic duct (the central tubular structure) entering the venous angle between the jugular vein and the vertebral vein on the left side of the neck. The movements of chyle and blood are identified with the use of a method of digital subtraction that separates static tissue from the flow in the vessels (B-flow) without the need for an enhancing contrast agent. Ultrasound imaging also allows visualization of the local anatomy of the thoracic duct and its relation to adjacent tissue and vessels, making it possible to detect disturbances in the movement of the chyle from the duct to the vein and functional abnormalities of the valves. In Panel B and Video 2, ultrasound imaging in a 45-year-old woman with chylothorax and swelling of the neck reveals stasis in the thoracic duct due to a visible adhesion of the valves in the duct. The valvular lesion was determined as the cause of the chylothorax on computed tomographic scanning, which showed no other disease. A low-fat diet was recommended, and the patient subsequently recovered.

Copyright © 2008 Massachusetts Medical Society.