



Ultrasonographic Identification of the Thyrocervical Trunk and Vertebral Artery in Adults to Decrease Complications

Yetişkinlerde Komplikasyonları Azaltmak Amacıyla Tiroservikal Gövde ve Vertebral Arterin Ultrasonografik Olarak Belirlenmesi

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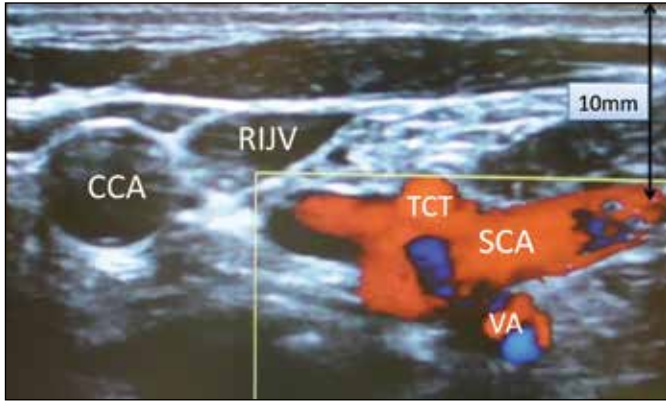


Figure 1. Neck vessels. A 28-year-old female lay flat and supine with her neck maximally extended and head turned approximately 15° to the left. An ultrasound apparatus containing an L12-2 MHz probe (L441, Noblus®; Hitachi Aloka Medical Ltd., Tokyo, Japan) with colour Doppler flow imaging in the short-axis view was caudally moved 70°–80° along the right internal jugular vein (IJV) from the middle of the neck. The subclavian artery (SCA) was 32 mm above the clavicle. The thyrocervical trunk (TCT) arose from the upper edge of the SCA at approximately 10 mm from the skin laterally behind the right IJV. The TCT ran toward the upper right in the video display. Below the lateral TCT arising position, the vertebral artery (VA) arose from the lower edge of the SCA at approximately 15 mm from the skin.

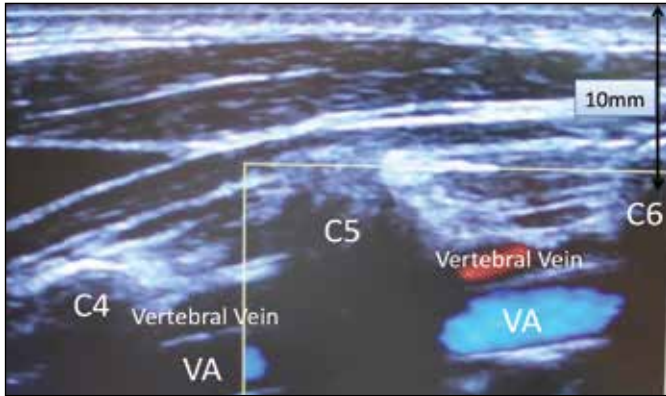


Figure 2. The vertebrae, vertebral vein and artery. On moving the probe cephalad, the VA ran parallel to the skin and between the C4 and C6 vertebrae in the longitudinal view. Before puncturing the IJV, the positions of the VA and arteries branching from the TCT in addition to the common carotid artery (CCA) may be ultrasonographically identified to avoid inadvertent arterial puncture. The VA sometimes seems difficult to be identified in adults, and the TCT can be mistaken as the VA. In young volunteers, the SCA can be identified 15–65 mm above the clavicle. Identifying the SCA first, TCT second and VA last may facilitate confirming the position of the arteries around the IJV.