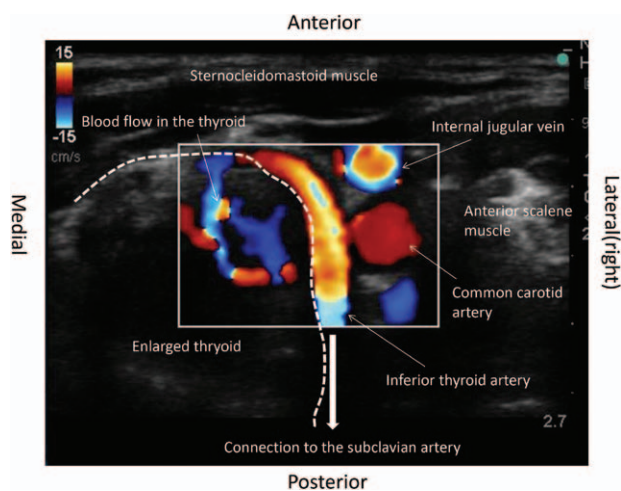


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Images in Anesthesiology: Detection of Large Inferior Thyroid Artery by Ultrasound Prescan before Internal Jugular Vein Catheterization

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CENTRAL venous catheterization is associated with several potential complications, including arterial puncture or cannulation. We report a case in which the large inferior thyroid artery was detected near the internal jugular vein using ultrasound. A 58-yr-old woman with undiagnosed goiter was scheduled to undergo hepatectomy. After the induction of general anesthesia, central venous catheterization was attempted *via* the right internal jugular vein. An ultrasound prescan in the short-axis view beside the cricoid cartilage indicated the presence of a large artery just medial to the internal jugular vein (fig.). The diameter was compatible with the common carotid artery. It branched out from the subclavian artery and proceeded lateral to the thyroid. Therefore, this artery was considered the inferior thyroid artery. The thyroid was enlarged, and color Doppler ultrasound showed high blood flow in the thyroid, which was connected with the artery. Moreover, the common carotid artery ran just below the internal jugular vein.

To avoid unintentional arterial or thyroid puncture, we changed insertion site from the right to the left internal jugular vein.

An unintentional thyroid artery puncture during internal jugular vein catheterization is rare but can cause serious complications.¹ Jeganath *et al.*² reported a case in which the thyroid artery ruptured during central vein catheterization. A recent report found hypervascularity in a patient with subclinical hyperthyroidism.³ In a patient with thyroid disease, ultrasound prescan around the thyroid may be used to reduce the risk of arterial puncture.

Competing Interests

The authors declare no competing interests.

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