

## Right Medial Internal Jugular Vein: A Reversed Carotid Sheath

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### SUMMARY

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Venous access is often essential in critical care medicine. The internal jugular vein (IJV) often provides reliable blood flow when subjected to cannulation. However, anatomical variations of the IJV have been reported as the cause of unsuccessful and complicated venous cannulation. We report ultrasonographic findings of an extremely rare variant of the right IJV in which this structure was located medial to the common carotid artery in the lower neck. A review of the literature on this topic is presented.

### INTRODUCTION

Venous access is often essential in critical care medicine. Though the internal jugular, subclavian and femoral veins are used for this purpose, the former is particularly preferred for hemodialysis due to its often extended functional life following catheter placement and because placement here does not usually interfere with patient mobility (Lin et al., 1998). The right internal jugular vein (IJV) is commonly chosen for central venous catheter placement (Shulman et al., 2000). However, failure rates of IJV cannulation range between 5 and 18% and complications have been reported to occur in 4-14% of cases (Jobes et al., 1983; Sznajder et al., 1986). These complications include accidental carotid arterial puncture, irritation of the brachial plexus, pericardial tamponade, hemothorax, pneumothorax, laryngeal edema and neck hematoma with resultant upper airway compromise (Lin et al., 1998; Randalls and Toomey, 1990). The variations in the relation of the IJV and common carotid