



The aim of this study was to share our observations pertaining to the anatomy and position of the right internal jugular vein with respect to carotid artery using ultrasound and our experience with ultrasound-guided right internal jugular vein access in neonates and small infants” Uzumcugil et al (2019).

Abstract:

BACKGROUND: The commonly preferred right internal jugular vein was investigated in terms of its dimensions, the relationship between its dimensions and anthropometric measures, and the outcomes of its cannulation in infants. Data regarding its position with respect to the carotid artery indicated anatomical variation.

AIM: The aim of this study was to share our observations pertaining to the anatomy and position of the right internal jugular vein with respect to carotid artery using ultrasound and our experience with ultrasound-guided right internal jugular vein access in neonates and small infants.

MATERIALS AND METHODS: A total of 25 neonates and small infants (<4000 g) undergoing ultrasound-guided central venous cannulation via right internal jugular vein within a 6-month period were included. Ultrasound-guided anatomical evaluation of the vein was used to obtain the transverse and anteroposterior diameters, the depth from skin and the position

with respect to the carotid artery. Real-time ultrasound-guided central cannulation success rates and complication rates were also obtained. The patients were divided into two groups with respect to their weight in order to compare both the position and the dimensions of right internal jugular vein and cannulation performance in infants weighing <2500 g and \geq 2500 g. RESULTS: The position was lateral to the carotid artery in 84% of all infants and similar in both groups. The first-attempt success rates of cannulation were similar (70% vs 73.3%) in both groups, with an overall success rate of 88%. CONCLUSION: Right internal jugular vein revealed a varying position with respect to carotid artery with a higher rate of lateral position. The presence of such anatomical variation requires ultrasonographic evaluation prior to interventions and real-time guidance during interventions involving right internal jugular vein.

You may also be interested in...

[Example of haemothorax following internal jugular vein cannulation](#)

[Review of ultrasound guided internal jugular vein cannulation](#)

[Ultrasound guided internal jugular vein cannulation in infants](#)

Reference:

Uzumcugil, F., Yilbas, A.A. and Akca, B. (2019) Ultrasound-guided anatomical evaluation and percutaneous cannulation of the right internal jugular vein in infants <4000 g. The Journal of Vascular Access. May 13th. . doi: 10.1177/1129729819845620.

