Pre-procedural evaluation of central veins prior to cannulation with ultrasound is essential to reduce the complication rates as well as to increase the success rates. The left brachiocephalic vein has been suggested to be considered as first choice in infants including the neonates due to its larger diameter and ease of access with supraclavicular, ultrasound-guided, in-plane technique. There are few studies on neonates and infants comparing the diameter of brachiocephalic vein with internal jugular vein being its most common alternative. The aim of the present report is to share our observations pertaining to the pre-procedural measurements of the diameters of left internal jugular vein and brachiocephalic vein in infants <1 year. The measurements were analysed in accordance with the weights of the infants (<2500 g and ≥2500 g). In infants <2500 g, the brachiocephalic vein was larger than the internal jugular vein (4.0 ± 0.7 (3.2-5.2) mm vs 3.2 ± 0.7 (1.9-4.3) mm, p = 0.032), whereas the diameters of two major veins were similar in infants ≥2500 g (4.8 ± 1.2 (2.3-6.4) mm vs 5.1 ± 0.9 (2.8-6.7) mm, p = 0.363). Our observations support the suggestion of the brachiocephalic vein to be considered as the first choice for large-bore cannulation due to its larger diameter as well as its other advantages, especially in neonates <2500 g.

Reference: