

The aim of this prospective study was to evaluate whether there was an association between the optimum ultrasonographic view as obtained of the entire longitudinal extension of the right BCV and the ease of supraclavicular cannulation when using a strict in-plane technique via a linear US probe in small infants” Breschan et al (2015).

Reference:

Breschan, C., Graf, G., Jost, R., Stettner, H., Feigl, G., Goessler, A., Neuwersch, S., Koestenberger, M. and Likar, R. (2015) Ultrasound-guided supraclavicular cannulation of the right brachiocephalic vein in small infants: a consecutive, prospective case series. Paediatric Anaesthesia. June 17th. .

US-guided supraclavicular cannulation of the right brachiocephalic vein [@ivteam #ivteam](http://ctt.ec/Zt5SM+)

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Abstract:

BACKGROUND: The supraclavicular ultrasound (US)-guided cannulation of the brachiocephalic vein (BCV) is one option of central venous line placement in infants.

AIM: The aim of this prospective study was to evaluate whether there was an association between the optimum ultrasonographic view as obtained of the entire longitudinal extension of the right BCV and the ease of supraclavicular cannulation when using a strict in-plane technique via a linear US probe in small infants.

METHODS: The US probe was placed in the right supraclavicular region. If the optimum obtainable sonographic view presented the entire longitudinal extension of the right BCV demonstrating clearly its path caudally alongside the pleura, it was graded as I. If, however, only a circular view, i.e., the initial part of the right BCV was obtainable via US, it was graded as II. The right BCV was cannulated by advancing a 22-gauge i.v. cannula from lateral to medial strictly under the long axis of the US probe under direct US vision into the vein.

RESULTS: Seventy-nine infants weighing between 0.8 and 4.5 kg (Median: 3.4 ± 0.09) were included. In 50 (63.3%) patients, the sonographic view was graded as I and in 29 (36.7%) as II. The proportion of patients successfully cannulated on the first attempt was significantly



smaller in patients graded as II, i.e., circular, sonographic view of the right BCV than in patients graded as I, i.e., sonographic view of the entire longitudinal extension of the right BCV (41% vs 90%; chi-square analysis: $P < 0.01$).

CONCLUSION: The sonographic view obtainable of the entire longitudinal extension of the right BCV resulted in significantly fewer required cannulation attempts.

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