



Placement of a central line catheter in the axillary vein using a novel ultrasound- guided bracket-assisted technique may be a feasible, safe and rapid alternative to the conventional jugular and subclavian approaches” Farina et al (2019).

Abstract:

BACKGROUND: Central venous catheterization is essential for careful administration of fluids and drugs in cardiac critical care patients. The axillary vein might represent an alternative to subclavian and jugular vein accesses, with the advantage of being extra-thoracic, more distal from the pleural space and with more likelihood of comfort for the patient. Conventional ultrasound-guided cannulation of the axillary vein is technically demanding and does not guarantee precise visualization of the needle tip.

METHODS: We describe a new in-plane technique with a dedicated bracket support for the needle, giving full tip control and continuous visualization of the tip and vessel, making the maneuver easier and safer. In an prospective observational study we also report the feasibility and safety of the novel procedure in a series of 35 cardiac critical care patients, also receiving non- invasive ventilatory support and/or being fully anti-coagulated.

RESULTS: With the novel technique, we obtained 97% success with procedural times comparable to other insertion sites and without complications.

CONCLUSIONS: Placement of a central line catheter in the axillary vein using a novel ultrasound- guided bracket-assisted technique may be a feasible, safe and rapid alternative to the conventional jugular and subclavian approaches.

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Reference:

Farina, A., Coppola, G., Bassanelli, G., Bianchi, A., Lenatti, L., Ferri, L.A., Liccardo, B., Spinelli, E., Savonitto, S. and Mauri, T. (2019) Ultrasound-guided central venous catheter placement through the axillary vein in cardiac critical care patients: safety and feasibility of a novel technique in a prospective observational study. *Minerva Anestesiologica*. July 4th. doi: 10.23736/S0375-9393.19.13670-X. .

