The technique of US-guided axillary CVC access can be undertaken successfully in ventilated intensive care patients, even in challenging circumstances" Glen et al (2015).

Abstract:

Central venous catheter (CVC) insertion is commonly undertaken in the ICU. The use of ultrasound (US) to facilitate CVC insertion is standard and is supported by guidelines. Because the subclavian vein cannot be insonated where it underlies the clavicle, its use as a CVC site is now less common.

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The axillary vein, however, can be seen on US just distal to the subclavian vein and placement of a CVC at this site gives a result which is functionally indistinguishable from a subclavian CVC. We evaluated placement of US-guided axillary CVCs in mechanically ventilated intensive care patients. Data were collected for 125 consecutive US-guided axillary CVC procedures in ventilated patients in an adult intensive care setting. All lines were inserted using real-time US guidance with an out-of-plane technique. One hundred and twenty-five procedures occurred in 119 patients. Successful line placement was achieved in 117 out of 125 (94%) procedures. Complications included four procedures that required repeating due to catheter malposition and one arterial puncture. The median number of attempts per procedure was one (IQR 1 to 2). Thirty-nine (31%) patients had a body mass
index of 30 or above, 43 (34%) patients had a coagulopathy and 70 (56%) patients had significant ventilator dependence (FiO2 of 0.5 or above, or positive end expiratory pressure 10 cmH2O or above). The technique of US-guided axillary CVC access can be undertaken successfully in ventilated intensive care patients, even in challenging circumstances. Taken together with existing work on the utility and safety of this technique, we suggest that it be adopted more widely in the intensive care population.

Reference:


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