



We revisit a method that may provide increased safety and avoidance of pneumothorax during ultrasound-guided subclavian/axillary vein cannulation. This is achieved by directing the needle toward the subclavian vein at a point where it traverses over the second rib, providing a protective rib shield between the vessel and pleura as a safety net for operators” Senussi et al (2017).

Abstract:

The Centers for Disease Control and Prevention guidelines for the prevention of catheter-related bloodstream infections suggest using “a subclavian site, rather than an internal jugular or a femoral site, in adult patients.” This recommendation is based on evidence of lower rates of thrombosis and catheter-related bloodstream infections in patients with subclavian central venous catheters (CVCs) compared to femoral or internal jugular sites. However, preference toward a subclavian approach to CVC insertion is hindered by increased risk of mechanical complications, especially pneumothorax, when compared to other sites.

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This is largely related to the proximity of the subclavian vein to the pleural space and the

traditional “blind” or anatomic landmark approach used in subclavian vein cannulation. We revisit a method that may provide increased safety and avoidance of pneumothorax during ultrasound-guided subclavian/axillary vein cannulation. This is achieved by directing the needle toward the subclavian vein at a point where it traverses over the second rib, providing a protective rib shield between the vessel and pleura as a safety net for operators. The technique also allows for increased compressibility of the subclavian/axillary vein in the event of bleeding complication.

Reference:

Senussi, M.H., Kantamneni, P.C., Omranian, A., Latifi, M., Hanane, T., Mireles-Cabodevila, E., Chaisson, N.F., Duggal, A. and Moghekar, A. (2017) Revisiting Ultrasound-Guided Subclavian/Axillary Vein Cannulations. *Journal of Intensive Care Medicine*. January 1st. .

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