Ultrasound-guided infraclavicular central venous access

“The aim of the study was to clarify to what extent a modified puncture technique guided by sonography can reduce the risk potential’ Gaus et al (2014).

Reference:


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Abstract:

BACKGROUND: Compared to other access routes a central venous catheter inserted via the subclavian vein (VS) is advantageous in terms of patient comfort, care of the puncture site and the infection rate. Puncture of the VS admittedly has a higher risk of mechanical complications but ultrasound guidance can reduce this risk; however, it is technically demanding due to anatomical peculiarities and this access route is therefore used comparatively less frequently.

AIM: The aim of the study was to clarify to what extent a modified puncture technique guided by sonography can reduce the risk potential.

MATERIAL UND METHODS: A technique is presented in which the infraclavicular insertion site is laterally shifted in the direction of the axillary vein (VA).

RESULTS: When the vein is visualized by sonography in the long axis the accompanying artery and the pleura remain outside the ultrasound plane. By doing so, a needle that is strictly guided in the imaging plane can barely damage these structures even if accidentally inserted too deep as they lie outside of the needle trajectory.

CONCLUSION: This presented technique can provide benefits for operators experienced in in-plane puncture.

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