The aims of our study were to compare the performance of experienced emergency physicians for internal jugular vein puncture using a conventional ultrasound device versus a pocket-sized ultrasound in a training model” Chetioui et al (2018).

Abstract:
INTRODUCTION: The aims of our study were to compare the performance of experienced emergency physicians for internal jugular vein puncture using a conventional ultrasound device versus a pocket-sized ultrasound in a training model.
METHODS: In this single-center, prospective, randomized study, emergency physicians performed one puncture with each device in a randomized order. No emergency physicians used a pocket-sized ultrasound for central vascular catheter insertion in clinical practice. A medium-fidelity training model was used. Each image was judged based on an image quality scale from 0 to 5.
RESULTS: Twenty emergency physicians were included: nine females (45%), median experience 2.5 years [2.0;4.3]. The median time to achieve a puncture with the conventional ultrasound device was 22 s [17;26] versus 28 s [13;43] with the pocket-sized ultrasound (p = 0.43). Eighteen (90%) emergency physician punctures were successful with the conventional ultrasound device versus 18 (90%) with the pocket-sized ultrasound (p = 1).
The image quality was 4 [3;5] in the conventional ultrasound device group versus 4 [3;5] in the pocket-sized ultrasound group (p = 0.32).
CONCLUSION: Pocket-sized ultrasound and conventional ultrasound device performances are not statistically different for internal jugular vein-guided ultrasonography in a training model. These results must be confirmed in a clinical study.
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