The aim is to compare pain scores between ultrasound-guided central line insertion and peripherally inserted catheter in neonates in a prospective randomized single center study” Sabouneh et al (2019).

Abstract:

BACKGROUND: Central lines can be placed through different techniques, either peripherally or centrally. Although they have the same aim, decision to use one of these modalities depends on the patient outcomes. The aim is to compare pain scores between ultrasound-guided central line insertion and peripherally inserted catheter in neonates in a prospective randomized single center study.

METHODS: A randomized controlled trial was conducted in neonates requiring central venous access for any of the following reasons: total parenteral nutrition (TPN), antibiotics treatment for at least 7 days and having poor or difficult venous access. The study compared pain difference, in neonates, that were randomized between peripherally and ultra-sound guided centrally placed central lines using the validated pain score N – PASS.

RESULTS: 61 neonates were enrolled in the study. US-guided CICC was associated with less pain as reported by the statistically significant lower pain score difference (p-value <0.001) than the standard PICC. Additionally, the US-guided CICC had a higher rate of successful first attempt (p = 0.012), lower overall number of attempts (p < 0.001), and shorter procedure duration (p < 0.001) as compared to standard PICC. CONCLUSION: US-guided CICC is a less painful technique than PICC line insertion associated with higher rate of successful first attempt, lower overall number of attempts and shorter procedure duration.

You may also be interested in...

Interactive online learning for ultrasound-guided central venous catheter insertion
Ultrasound assisted subclavian central venous catheter insertion
Ultrasound-guided peripheral intravenous catheter insertion
Reference: