

“We compared the success rates of peripherally inserted central catheters by two methods of using static ultrasound and traditional technique (vein visualization and palpation) in neonates” Abdeyazdan et al (2014).

Reference:

Abdeyazdan, Z., Sheikhan-Sudani, E., Sadeghnia, A. and Talakoub, S. (2014) Effect of using static ultrasound technique on peripherally inserted central catheters' insertion success rate in neonates in a neonatal intensive care unit. Iranian Journal of Nursing and Midwifery Research. 19(6), p.643-6.

Methods of neonatal PICC insertion reviewed <http://ctt.ec/oe6Kb+> @ivteam #ivteam

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Abstract:

BACKGROUND: Peripheral insertion of central catheters can be difficult in neonates. We compared the success rates of peripherally inserted central catheters by two methods of using static ultrasound and traditional technique (vein visualization and palpation) in neonates.

MATERIALS AND METHODS: In a prospective randomized, controlled trial, 52 neonates with birth weight lower than 1500 g in a level 3 neonatal intensive care unit were enrolled. Neonates were randomized to undergo peripherally inserted central catheter placement using a traditional technique (n = 27) versus static ultrasound-guided technique (n = 25). In the ultrasound group, vein localization was performed and the skin overlying the target vessel was marked. Insertion of catheter was then immediately performed. We recorded and compared success rates in the groups.

RESULTS: Success rate after the first attempt was 68% in ultrasound group and 60% in traditional group. These rates for the second attempt were 50% and 40%, respectively. The overall success rates after two attempts were 84% and 76% in ultrasound and traditional groups, retrospectively (P = 0.24).

CONCLUSIONS: There was no significant difference between the two groups regarding PICC

success rates, probably because in the present study, most of the subjects were premature neonates whose vasculature was visually detectable.

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