



Long peripheral cannulas represent a valid option for medium-term intravenous access in children undergoing surgery” Pacilli et al (2018).

Abstract:

INTRODUCTION: Medium-term intravenous access in children is normally achieved by means of repeated multiple peripheral intravenous cannula insertions or peripherally inserted central catheters. Long peripheral cannulas might offer an alternative to these devices in children. Our aim was to clarify whether long peripheral cannulas provide reliable medium-term intravenous access avoiding the need for multiple peripheral intravenous cannulations or peripherally inserted central catheter insertion in children undergoing surgery.

METHODS: Following ethical approval, we prospectively collected data in children requiring medium-term intravenous access. The 22G-8-cm-long peripheral cannulas were inserted with a Seldinger technique in a peripheral vein. Position was checked by flushing and aspirating the catheter. Results are reported as mean \pm standard deviation.

RESULTS: A total of 18 children were included. Indications for medium-term intravenous therapy included perforated appendicitis ($n = 14$), infected central venous port ($n = 2$), fungal infection ($n = 1$) and septic arthritis ($n = 1$). In all, 15 (83%) patients underwent the procedure under general anaesthetic. The procedure failed in an 8-year-old patient. Insertion time was 8 ± 3.7 min. Age at insertion was 6.3 ± 4.9 years. Duration of intravenous therapy was

6.4 ± 5.1 days. About 13 (76%) patients completed the treatment with no complications. Three (17%) lines occluded by day 3 needed removal; one (7%) line needed removal on day 3 because of redness/pain noted around the insertion site.

CONCLUSION: Long peripheral cannulas represent a valid option for medium-term intravenous access in children undergoing surgery. Majority of patients will be successfully treated with one long peripheral cannula for the duration of their treatment without the need for further cannulation.

Reference:

Pacilli, M., Bradshaw, C.J. and Clarke, S.A. (2018) Use of 8-cm 22G-long peripheral cannulas in pediatric patients. *The Journal of Vascular Access*. March 1st. .

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