

Tunneled PICC complications

Abstract:

Objectives: We sought to compare complications associated with tunneled peripherally inserted central catheters (tPICCs) and tunneled-cuffed centrally inserted central catheters (tCICCs) in adult home parenteral nutrition (HPN).

Methods: The study (2017-2019) identified 257 people with type III chronic intestinal failure requiring HPN. The data were analyzed for tPICC- and tCICC-related complications. The rate of catheter-related complications was recorded as the number of complications analyzed per 1000 d of catheter use, and rates were compared using the Mann-Whitney Wilcoxon test.

Results: A total of 273 venous access devices were included to the analyses: 150 (55%) non-cuffed tPICCs and 123 (45%) tCICCs. In-dwelling time for tPICCs and tCICCs were 23 045 and 43 789 catheter d, respectively. Median (interquartile range) catheter days and duration of HPN, for tPICCs and tCICCs, were respectively 119 (166) and 324 (314) d and 108 (159) and 324 (322) d. The overall complication rates per 1000 catheter d for tPICCs and tCICCs were 1.52 and 0.8, respectively ($P = 0.565$). On analysis, there was no statistical difference between complication rates per 1000 catheter d. The removal rate and conversion ratio due to complications were similar for tPICCs and tCICCs.

Conclusions: Both tPICCs and tCICCs have similar complication rates per 1000 d. This study highlights that tCICCs, the preferred and currently used venous access devices in HPN, can be effectively and safely replaced by tPICCs, depending on the indications.

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Reference:

Matysiak K, Szewczuk M, Sobocki J, Zdziarska M, Siatkowski I. Complications of tunneled peripherally inserted and tunneled-cuffed central catheters in home parenteral nutrition. *Nutrition*. 2021 May 26;91-92:111354. doi: 10.1016/j.nut.2021.111354. Epub ahead of print. PMID: 34246088.