

To study the risk of catheter-associated thrombosis (CAT) between peripherally inserted central catheters (PICCs) and tunneled central venous catheters in children with leukemia” Noailly Charny et al (2018).

Abstract:

OBJECTIVE: To study the risk of catheter-associated thrombosis (CAT) between peripherally inserted central catheters (PICCs) and tunneled central venous catheters in children with leukemia.

STUDY DESIGN: We analyzed all PICCs and conventional tunneled catheters placed in patients aged <18 years and admitted to our institute for leukemia treatment between February 2008 and April 2014. Cases of symptomatic CAT were confirmed by ultrasound and treated with low-molecular-weight heparin.

RESULTS: During the study period, 157 PICCs and 138 conventional tunneled catheters were placed in 192 patients with leukemia. CAT incidence was 1.5% (n = 2) in the conventional tunneled catheter group and 10.2% (n = 16) in the PICC group. The OR for CAT occurrence after PICC vs conventional tunneled catheter placement was 5.6 (95% CI, 1.2-26.5).

CONCLUSION: Our results suggest that the use of PICCs in children with leukemia increases the risk of CAT in comparison with the use of conventional tunneled catheters. Further randomized controlled studies are needed to characterize this risk and to better define indications.

Reference:

Noailly Charny, P.A., Bleyzac, N., Ohannessian, R., Aubert, E., Bertand, Y. and Renard, C. (2018) Increased Risk of Thrombosis Associated with Peripherally Inserted Central Catheters Compared with Conventional Central Venous Catheters in Children with Leukemia. *The Journal of Pediatrics*. April 27th. .



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