

With the rising use of midline catheters (MCs), validation of their safety is essential. Our study aimed to evaluate the incidence of bloodstream infections (BSIs) and other complications related to the use of MCs and central venous catheters (CVCs)” Mushtaq et al (2018).

Abstract:

Background: With the rising use of midline catheters (MCs), validation of their safety is essential. Our study aimed to evaluate the incidence of bloodstream infections (BSIs) and other complications related to the use of MCs and central venous catheters (CVCs).

Methods: A retrospective cohort study was performed at a tertiary care hospital in Detroit, Michigan, from March-September 2016. Adult patients with either MC or CVC were included. Outcomes assessed were catheter-related BSI (CRBSI), mechanical complications, hospital length of stay, readmission within 90 days of discharge (RA), and mortality. Statistical analysis was performed using SAS software.

Results: A total of 411 patients with MC and 282 patients with CVC were analyzed. More CRBSIs were seen in patients with CVC (10/282) than MC (1/411) (3.5% vs 0.2%, respectively; $P = .0008$). More mechanical complications were seen in patients with MC (2.6%) than CVC (0.3%; $P = .03$). Patients with CVC had a higher crude mortality (17.3% vs 5.3%; $P < .0001$), RA (58% vs 35%; $P \leq .0001$), line-related RA (2.8% vs 0.2%; $P = .0041$), and transfer to intensive care unit after line placement (9% vs 5%; $P = .01$). CVC was a significant exposure for a composite of mortality, CRBSI, mechanical issues, thrombosis, and readmission because of a line-related complication (odds ratio, 3.2; 95% confidence interval, 1.8-5.8).

Conclusions: Our findings show use of MC is safer than CVC, but larger studies are needed to confirm our findings.

Reference:



Mushtaq, A., Navalkele, B., Kaur, M., Krishna, A., Saleem, A., Rana, N., Gera, S., Chandramohan, S., Surapaneni, M. and Chopra, T. (2018) Comparison of complications in midlines versus central venous catheters: Are midlines safer than central venous lines? American Journal of Infection Control. March 7th. .

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