We hypothesized that infectious morbidities following percutaneously inserted central venous catheter (PICC) removal would be greater among neonates with central-line associated bloodstream infection (CLBASI)" Garland et al (2017).

Abstract:

OBJECTIVE: We hypothesized that infectious morbidities following percutaneously inserted central venous catheter (PICC) removal would be greater among neonates with central-line associated bloodstream infection (CLBASI).
Neonates with CLABSI are at risk for additional infectious morbidities after PICC removal.

STUDY DESIGN: This retrospective cohort study, included all neonates who required a PICC over a ten-year period. Outcomes assessed following PICC removal included: late bloodstream infection, rule-out sepsis workups, need for a subsequent PICC and antibiotic days and PICC days after PICC removal. Odds ratios (OR) and 95% confidence intervals (CI) were determined for outcomes. Regression analyses were used to control for confounders.

RESULTS: Two-thousand nine hundred and thirteen neonates required at least one PICC during the study period. After adjusting for confounders neonates with CLABSI were 3.4 (95% confidence interval (CI) 2.5, 4.6) and 2.2 (95% CI 1.2, 4.0) times more likely respectively to require a subsequent PICC or develop a late bloodstream infection after PICC removal. Neonates with CLABSI required 1.33 (95% CI 0.77, 1.89) more days of antibiotic treatment and 6.85 (95% CI 5.34, 8.37) more PICC days following PICC removal than neonates without a CLABSI.

CONCLUSIONS: Neonates with CLABSI are at risk for additional infectious morbidities after PICC removal. Future intervention studies should aim to reduce morbidities following catheter removal in infants with CLABSI, such as administering antibiotics at the time of catheter removal.

Reference:


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