
Abstract:

PURPOSE: To evaluate technical success and the incidences of, and risk factors for, mechanical and infectious complications of venous port placement in infants.

MATERIALS AND METHODS: This was a retrospective single-institution cohort study of port placement in infants (age < 1 y) from January 2006 through June 2016 (mean age, 7.5 mo ± 3.3; mean weight, 8.1 kg ± 1.9). Age, weight, sex, side of placement, tip position, and indication for placement (chemotherapy vs other) were recorded. Total catheter-days (CDs), mechanical complications, and central catheter-associated bloodstream infections (CCABSIs) were identified.

RESULTS: During the study years, 64 ports were placed in 64 infants, with a technical success rate of 100%. The mean catheter life was 321 days (total range, 4-1,917 d; interquartile range, 107-421 d). There were 13 CCABI events (0.63 per 1,000 CDs); of these, 8 (12.5% among 64 patients) required port removal for infection. There was an increase in CCABSIs in patients with left-sided port placement (relative risk, 3.22; 95% confidence interval, 1.02-10.14; P = .05). There were 8 mechanical complications of the port reservoir or catheter (0.39 per 1,000 CDs). Of these, 2 (3.1%) required removal. Patients in the lowest weight quartile were at an increased risk of mechanical complications (RR, 4.37; 95% CI, 1.09-17.48; P = .04).

CONCLUSIONS: Venous ports can be placed with a high rate of technical success in infants. Left-sided ports and low weight are associated with increased infectious and mechanical complications, respectively.
Reference:


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