PICCs in children with intestinal failure have similar complication rates to Broviacs®. Use of tunneled PICCs and increasing experience with this vascular access method may allow it to realize its potential advantages” LaRusso et al (2019).

Abstract:

PURPOSE: Prolonged central vascular access is a source of significant morbidity in children with intestinal failure (IF). In an effort to decrease morbidity, our multidisciplinary IF team has primarily used peripherally inserted central catheters (PICCs) for these patients. We compared outcomes of PICCs to Broviacs®.

METHODS: A review of children with IF (2006-2018) at an academic children’s hospital was conducted.

INCLUSION CRITERIA: total parenteral nutrition duration >42 days or small bowel length < 25% of total for gestational age. Complications/1000 catheter days were extracted, and a Poisson model was used to compare complications between PICCs and Broviacs®.

RESULTS: Thirty-seven patients with IF were included, accounting for 19,452 catheter days. There were 209 PICCs (1.2-4F) and 39 Broviacs® (2.7-7F). The median duration of overall PICC access/patient was 166 days (range: 35 days-8 years). Incidences of central line associated blood stream infection and venous thrombosis were 3.95 and 0.55 per 1000 catheter days, respectively. There were no significant differences in complication rates per line per catheter day between PICCs and Broviacs®. Broviacs® had a larger number of catheter-related hospital admissions than PICCs. CONCLUSIONS: PICCs in children with intestinal failure have similar complication rates to Broviacs®. Use of tunneled PICCs and increasing experience with this vascular access method may allow it to realize its potential advantages. LEVEL OF EVIDENCE: Retrospective study, level III.

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