To determine if severe neutropenia at the time of chest port insertion is a risk factor for port removal and central catheter-associated bloodstream infection (CCABSI) in pediatric patients” Hoss et al (2016).

Abstract:

PURPOSE: To determine if severe neutropenia at the time of chest port insertion is a risk factor for port removal and central catheter-associated bloodstream infection (CCABSI) in pediatric patients.

MATERIALS AND METHODS: From May 2007 to June 2015, 183 consecutive patients (mean age, 9.9 y; range, 0.75-21 y) had a port inserted at a single tertiary pediatric center. Seventy-two had severe neutropenia at the time of port insertion (absolute neutrophil count range, 0-500/mm3; mean, 185/mm3). Follow-up until port removal or death and CCABSI events were recorded.

RESULTS: Within the first 30 days, similar incidences of CCABSI (12.5% of patients with severe neutropenia vs 4.5% of patients without), port removal for infection (2.8% vs 2.7%),
and local port infection (2.8% vs 0.9%) were observed in both groups (P > .05), but the rate of CCABSI per 1,000 catheter-days was higher for patients with severe neutropenia (P = .045). Overall, similar incidences of CCABSI (18.1% vs 16.2%), port removal for infection (2.8% vs 7.2%), local port infection (2.8% vs 2.7%), and CCABSI per 1,000 catheter-days (0.332 vs 0.400) were observed in both groups (P > .05).

CONCLUSIONS: Port placement in patients with severe neutropenia can be performed without an increased incidence of port removal for infection. The majority of CCABSI were successfully treated without port removal.

Reference:


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