Central line salvage following CRBSI during home parenteral nutrition

Data regarding catheter salvage after a CRBSI episode are limited. We aimed to determine the incidence of CRBSI and rates of catheter salvage in adult patients receiving HPN.

Reference:

Abstract:
Background: Catheter-related bloodstream infection (CRBSI) is a common complication in patients receiving home parenteral nutrition (HPN). Data regarding catheter salvage after a CRBSI episode are limited. We aimed to determine the incidence of CRBSI and rates of catheter salvage in adult patients receiving HPN.

Materials and Methods: We retrospectively searched our prospectively maintained HPN database for the records of all adult patients receiving HPN from January 1, 1990, to December 31, 2013, at our tertiary referral center. Data abstracted from the medical records
included demographics, diseases, treatments, and outcomes. The incidence of CRBSI and rates of catheter salvage were determined.

Results: Of 1040 patients identified, 620 (59.6%) were men. The median total duration on HPN was 124.5 days (interquartile range, 49.0–345.5 days). Mean (SD) age at HPN initiation was 53.3 (15.3) years. During the study period, 465 CRBSIs developed in 187 patients (18%). The rate of CRBSI was 0.64/1000 catheter days. Overall, 70% of catheters were salvaged (retained despite CRBSI) during the study period: 78% of infections with coagulase-negative staphylococci, 87% with methicillin-sensitive Staphylococcus aureus, and 27% with methicillin-resistant S aureus. The percentage of catheters salvaged was 63% from 1990 to 1994, 63% from 1995 to 1999, 61% from 2000 to 2004, 72% from 2005 to 2009, and 76% from 2010 to 2013.

Conclusion: Catheter salvage is possible after a CRBSI episode. Since most episodes of CRBSI are caused by skin commensals, effective treatment without removal of the central venous catheter is possible in most cases.

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