Central venous access device (CVAD)-related complications are associated with high morbidity rates. This study was performed to underline the importance of CVAD-complication prevention and treatment” van den Bosch, et al (2018).

Abstract:

BACKGROUND: Central venous access device (CVAD)-related complications are associated with high morbidity rates. This study was performed to underline the importance of CVAD-complication prevention and treatment.

METHODS: An audit of practice of CVAD-related complications in pediatric oncology patients receiving a CVAD between January 2015 and June 2017 was performed. CVADs included were totally implantable venous access ports (TIVAPs), Hickman-Broviac® (HB), nontunneled, and peripherally inserted CVADs.

RESULTS: A total of 201 children, with 307 CVADs, were analyzed. The incidence rates per 1000 CVAD-days for the most common complications were 1.66 for malfunctions, and 1.51 for central line-associated bloodstream infections (CLABSIs). Of all CVADs inserted, 37.1% were removed owing to complications, of which 45.6% were owing to CLABSIs. In 42% of the CLABSIs, the CLABSI could be successfully cured with systemic antibiotic treatment only. Of all included patients, 5.0% were admitted to the intensive care unit owing to CLABSI. The HB-CVAD compared to the TIVAP was a risk factor for CVAD-related complications, CLABSIs and
dislocations in particular.

CONCLUSIONS: The incidence of CVAD-related complications is high. Research on the prevention and treatment of CVAD-related complications in pediatric oncology patients should be a high priority for all health care professionals.

TYPE OF STUDY: Prognosis study (retrospective).

LEVEL OF EVIDENCE: Level II.

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