
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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Reference:
van den Bosch, C.H., van der Bruggen, J.T., Frakking, F.N.J., Terwisscha van Scheltinga, C.E.J., van de Ven, C.P., van Grotel, M., Wellens, L.M., Loeffen, Y.G.T., Fiocco, M. and Wijnen, M.H.W.A. (2018) Incidence, severity and outcome of central line related complications in pediatric oncology patients; A single center study. Journal of Pediatric Surgery. October 30th.
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