

To analyze the rate of infections and complications after surgeon-performed, largely ultrasound-guided, central venous catheter (CVC) placement in a pediatric population and to identify patients at high risk of complications” van Gent et al (2016).

Abstract:

OBJECTIVE: To analyze the rate of infections and complications after surgeon-performed, largely ultrasound-guided, central venous catheter (CVC) placement in a pediatric population and to identify patients at high risk of complications.

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METHODS: All children aged between 4 months and 19 years with a percutaneous CVC inserted between January 1, 2000, and July 31, 2013, were included. Patient records were reviewed retrospectively for the occurrence of infection and other complications until CVC removal or the last outpatient clinic visit and compared between patient groups and with the recent literature.

RESULTS: A total of 538 CVCs were placed in 345 patients. Eight patients (1.5%) suffered complications during placement. There were 84 cases of a suspected CVC infection (15.6%). Catheter-related infections with a positive catheter tip culture occurred in 25 cases (4.6%). Older patients (odds ratio 0.88; 95% confidence interval 0.78-0.98) or patients with a double-lumen 7 French Bard-Hickman catheter (OR 0.32; 95% CI 0.11-1.00) had a significantly lower risk of infection. Older patients (OR 0.94; 95% CI 0.89-0.99) and patients with beta-thalassemia (OR 0.35; 95% CI 0.17-0.71) also had a significantly lower risk of suspected infection.

CONCLUSION: In general, infection rates in our series were similar to those in the recent literature. Younger patients seem to be at higher risk for CVC removal because of infection prior to the end of treatment. Patients with beta-thalassemia or receiving a double-lumen 7F Bard-Hickman catheter had a lower risk of infection.



Reference:

van Gent, M.B., van der Made, W.J., Marang-van de Mheen, P.J. and van der Bogt, K.E. (2016) Contemporary Insertion of Central Venous Access Catheters in Pediatric Patients: A Retrospective Record Review Study of 538 Catheters in a Single Center. *Surgical Infections*. October 14th. .

DOI: 10.1089/sur.2016.113.

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