Background: Patients with inflammatory bowel disease (IBD) occasionally require central venous catheter (CVC) placement to support a therapeutic plan. Given that CVC can predispose patients to infection, this investigation was undertaken to assess the incidence, risk factors, and outcomes of CVC-related blood stream infection (CRBSI) in patients with IBD during routine clinical practice.

Methods: Data were compiled using retrospective chart reviews of 1367 patients treated at our IBD center between 2007 and 2012 during routine clinical practice. Among the 1367 patients, 314 who had received CVC placements were included. Patients with positive blood culture were considered as “definite” CRBSI, whereas “possible” CRBSI was defined as patients in whom fever alleviated within 48 hours post-CVC without any other infection. Patients' demographic variables including age, body mass index, serum albumin, duration of CVC placement, use of antibiotics, medications for IBD, and perioperative status between CRBSI and non-CRBSI subgroups were compared by applying a multivariate Poisson logistic regression model.

Results: Among the 314 patients with CVC placement, there were 83 CRBSI cases (26.4%). The average time to the onset of CRBSI was 22.5 days (range 4-105 days). The jugular vein access was found to be the most serious risk of CRBSI (risk ratio 2.041 versus subclavian vein). All patients with CRBSI fully recovered.
CONCLUSIONS: In this investigation, regardless of the patients’ demographic features including immunosuppressive therapy, up to 30% of febrile IBD patients with CVC showed CRBSI. It is believed that CVC placement per se is a risk of CRBSI in patients with IBD.

Reference:


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