Abstract:

BACKGROUND: The use of central venous catheters (CVCs) has greatly improved the quality-of-care in cancer patients, yet these catheters may cause serious infectious and thrombotic complications. The aim of this retrospective study was to study the various types of CVCs and their complications.

MATERIALS AND METHODS: We studied retrospectively 213 cases of CVCs in our institute with their indications, type and complications from August 2010 to July 2011.

RESULTS: A total of 213 CVCs were inserted in patients with hematological (62%) and solid organ malignancies (38%). Ninety-eight patients (46%) had peripheral inserted central catheter (PICC), 90 (42%) patients had Hickman catheters and 25 (12%) had a port. The median duration of retention of Hickman catheters was 104 days (3-365 days), for the peripherally inserted central catheters was 59 days (3-100 days) and for the port it was 280 days (45-365 days). Non-infective complications were more than infective (12% vs. 7%). The most common complication was non-infective occlusion and thrombophlebitis. In one patient with PICC thrombosis occurred in the cephalic, radial and ulnar vein and in one patient with port thrombosis occurred in the superior vena cava. Organisms were isolated in 60% (12 out
of 20) of cultures. Common organisms isolated were Pseudomonas aeruginosa in 5 (42%), Staphylococcus aureus in 2 (16%), Escherichia coli in 2 (16%) and Aspergillus in 3 (25%) patients. 7 out of 12 infected patients had negative blood cultures within 7 days of antibiotic treatment, 5 patients remained positive for more than 7 days with antibiotics. In 155 patients (73%), the desired treatment protocol was completed and at present there are still 28 patients (13%) with catheters. 5 patients (2.3%) died of febrile neutropenia and septicemia with multi-organ failure. In 5 patients (2.3%), the catheters (1 Port, 1 Hickman and 3 PICC) were prematurely removed because of thrombosis.

CONCLUSION: CVCs are better options to facilitate the long-term vascular access provided infection is prevented with meticulous care and treated promptly with proper antibiotics. Most CVCs is acceptable to patients.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).