Our aim was to study the incidence of catheter-related deep venous thrombosis in patients with cancer receiving chemotherapy through either a PICC or a PORT” Taxbro et al 92019).

Abstract:

BACKGROUND: Centrally inserted totally implanted vascular access ports (PORTs) and peripherally inserted central catheters (PICCs) are widely used for the administration of chemotherapy. Our aim was to study the incidence of catheter-related deep venous thrombosis in patients with cancer receiving chemotherapy through either a PICC or a PORT.

METHODS: Adults with non-haematological cancer (mainly breast and colorectal) from two Swedish oncology centres were included and followed for up to 1 yr. Patients were randomly assigned to receive a single-lumen PICC or PORT. The primary end point was the occurrence of a clinically significant catheter-related deep venous thrombosis, and the secondary end point was a composite of adverse events related to the catheter: insertion complication, thrombosis, occlusion, infection, and mechanical problems.

RESULTS: The trial recruited 399 participants (PICC, n=201; PORT, n=198) between March 2013 and February 2017. The PICCs were associated with 16 (8%) deep venous thromboses compared with two (1%) in the PORT group (HR=10.2; 95% confidence interval, 2.3-44.6; P=0.002). The overall incidence of composite adverse events was higher for patients with a PICC compared with those with a PORT (HR=2.7; 95% confidence interval, 1.6-4.6; P<0.001). CONCLUSIONS: PICCs are associated with higher risk for catheter-related deep venous thrombosis and other adverse events when compared with PORTs. This increased risk should be considered when choosing a vascular access device for chemotherapy, especially in patients with solid malignancy. CLINICAL TRIAL REGISTRATION: NCT01971021.

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