The peripherally inserted central catheter-PORT is a safe vascular device for chemotherapy delivery that achieves similar clinical results as traditional long-term vascular access devices (peripherally inserted central catheter and arm totally implantable vascular access device” Bertoglio et al (2019).

Abstract:

BACKGROUND AND OBJECTIVES: The increasing use of arm totally implantable vascular access devices for breast cancer patients who require chemotherapy has led to a greater risk of complications and failures and, in particular, to upper extremity deep vein thrombosis. This study aims to investigate the outcomes of the arm peripherally inserted central catheter-PORT technique in breast cancer patients.

METHODS: The peripherally inserted central catheter-PORT technique is an evolution of the standard arm-totally implantable vascular access device implant based on guided ultrasound venous access in the proximal third of the upper limb with subsequent placement of the reservoir at the middle third of the arm. A prospective study was conducted on 418 adult female breast cancer patients undergoing chemotherapy. The primary study outcome was peripherally inserted central catheter-PORT failure.

RESULTS: Median follow-up was 215 days. Complications occurred in 29 patients (6.9%) and
failure resulting in removal of the device in 11 patients (2.6%). The main complication we observed was upper extremity deep vein thrombosis, 10 (2.4%); all patients were rescued by anticoagulant treatment without peripherally inserted central catheter-PORT removal. The main reason for removal was reservoir pocket infection: 4 (0.9%) with an infection rate of 0.012 per 1000 catheter days. Cumulative 1-year risk of failure was 3.6% (95% confidence interval, 1.3%-7.1%). With regard to the patients’ characteristics, body mass index <22.5 was the only significant risk for failure (p = 0.027). CONCLUSION: The peripherally inserted central catheter-PORT is a safe vascular device for chemotherapy delivery that achieves similar clinical results as traditional long-term vascular access devices (peripherally inserted central catheter and arm totally implantable vascular access device, in particular) in breast cancer patients.

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