



“In our study, we demonstrated that central venous ports and PICC lines in patients undergoing infusional chemotherapy had lower line infection rates than tunnelled catheters, and only ports have been shown to be almost complication-free.” Coady et al (2014).

Reference:

Coady, K., Ali, M., Sidloff, D., Kenningham, R.R. and Ahmed, S. (2014) A comparison of infections and complications in central venous catheters in adults with solid tumours. The Journal of Vascular Access. September 1st. .

Comparison of infections and complications in central venous catheters in adults
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Abstract:

AIM: The aim of this study is to compare the complication rates of three vascular access devices in patients with solid tumours having infusion chemotherapy.

MATERIALS AND METHODS: An observational study of 58 central venous catheter (CVC) lines inserted in 55 patients with solid tumours requiring infusional chemotherapy was performed. The study was conducted between January 2011 and August 2013, looking at complication and infection rates as primary outcomes. Data were recorded from patients with 19 tunnelled

cuffed silicone catheters, nine with peripherally inserted central catheters (PICCs) and 30 central venous ports.

RESULTS: The two CVC groups (ports and non-ports) matched equally in terms of tumour site; all patients with solid tumours were included, haematology patients were excluded and chemotherapy regimens were comparable. Thirteen out of 28 non-ports had complications compared with one out of 30 central venous ports. Ten out of 19 tunnelled catheters had complications including three displacements and seven were removed due to infection. There were no reports of line-related sepsis in the PICC or ports. Three out of nine PICC lines had complications including two displacements and one PICC blocked permanently requiring removal. In addition, one port out of 30 was removed due to erosion through the skin. There were no episodes of thrombosis or fibrin sheath formation related to any of the devices.

CONCLUSIONS: In our study, we demonstrated that central venous ports and PICC lines in patients undergoing infusional chemotherapy had lower line infection rates than tunnelled catheters, and only ports have been shown to be almost complication-free. In addition, we found infection rates higher in CVCs cared for by patient/carers rather than hospital only care, and higher in colorectal patients with stomas. Therefore, we recommend that central venous ports are a safe, acceptable CVC option for infusional chemotherapy for adults with solid tumours.

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