



In our study, we tested the efficacy and safety of peripherally inserted central catheters to manage cardiac intensive care” Poletti et al (2018).

Abstract:

**PURPOSE:** Patients admitted to cardiac intensive care unit need administration of drugs intravenously often in concomitance of therapeutic techniques such as non-invasive ventilation, continuous renal replacement therapy and intra-aortic balloon counterpulsation. Therefore, the insertion of central venous catheters provides a reliable access for delivering medications, laboratory testing and hemodynamic monitoring, but it is associated with the risk of important complications. In our study, we tested the efficacy and safety of peripherally inserted central catheters to manage cardiac intensive care.

**METHODS:** All patients admitted to cardiac intensive care unit with indication for elective central venous access were checked by venous arm ultrasound for peripherally inserted central catheter’s implantation. Peripherally inserted central catheters were inserted by ultrasound-guided puncture. After 7 days from the catheter’s placement and at the removal, vascular ultrasound examination was performed searching signs of upper extremity deep venous thrombosis. In case of sepsis, blood cultures peripherally from the catheter and direct culture of the tip of the catheter were done to establish a catheter-related blood stream infection.

**RESULTS:** In our cardiac intensive care unit, 137 peripherally inserted central catheters were placed: 80.3% of patients eligible for a peripherally inserted central catheter were implanted. The rate of symptomatic catheter-related peripheral venous thrombosis was 1.4%. Catheter-related blood stream infection was diagnosed in one patient (0.7%;  $5.7 \times 1000$  peripherally inserted central catheter days). All peripherally inserted central catheters were inserted successfully without other major complications.

**CONCLUSIONS:** In patients admitted to cardiac intensive care unit, peripherally inserted central catheters' insertion was feasible in a high percentage of patients and was associated with low infective complications and clinical thrombosis rate.

Reference:

Poletti, F., Coccino, C., Monolo, D., Crespi, P., Ciccio, G., Cordio, G., Seveso, G. and De Servi, S. (2018) Efficacy and safety of peripherally inserted central venous catheters in acute cardiac care management. *The Journal of Vascular Access*. March 1st. .

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