

CT-guided translumbar placement of permanent catheters is a technically feasible and safe method for permanent central venous access as last resort in chronically occluded veins of the upper extremities” Grözinger et al (2018).

Abstract:

PURPOSE: To evaluate indications, technical success rate and complications of CT-guided translumbar catheter placement in the inferior vena cava for long-term central venous access (Port and Hickman catheters) as a bail-out approach in patients with no alternative options for permanent central venous access.

MATERIALS AND METHODS: This retrospective study included 12 patients with a total of 17 interventions. All patients suffered from bilaterally chronically occluded venous vessels of their upper extremities, without patent internal jugular and/or subclavian veins. Catheter implantation was performed as a hybrid procedure with CT-guided translumbar access into the inferior vena cava with subsequent angiography-guided catheter placement of a Hickman-type catheter (7×) or a Port catheter (10×).

RESULTS: All interventions were technically successful. The total 30-day complication rate was 11.8% (n = 2). The two detected complications were bleeding at the subcutaneous port hub and subcutaneous kinking of the venous tube. Mean follow-up time was 68.4 ± 41.4 months (range 3.4-160 months). Six patients (50%) died during follow-up from non-procedure-related complications associated with the underlying disease. Late complications occurred in 8/17 (47.1%) cases and were infections of the catheter system in 35.3% (n = 6), mechanical defect of the catheter system in 5.8% (n = 1) and dislocation of the catheter system in 5.8% (n = 1). The overall infection rate was 0.77 per 1000 catheter days.

CONCLUSIONS: CT-guided translumbar placement of permanent catheters is a technically feasible and safe method for permanent central venous access as last resort in chronically occluded veins of the upper extremities.

Reference:

Grözing, G., Grosse, U., Syha, R., Hoffmann, R., Partovi, S., Nikolaou, K., Stahl, S., Königsrainer, A., Thiel, K. and Thiel, C. (2018) CT-Guided Translumbar Placement of Permanent Catheters in the Inferior Vena Cava: Description of the Technique with Technical Success and Complications Data. Cardiovascular and Interventional Radiology. April 19th. .

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