



Intravenous literature: Frampton, A.E., Kessarlis, N., Hossain, M., Morsy, M. and Chemla, E.S. (2009) Use of the femoral artery route for placement of temporary catheters for emergency haemodialysis when all usual central venous access sites are exhausted. *Nephrology Dialysis Transplantation*. 24(3), p.913-8.

Abstract:

BACKGROUND: Urgent dialysis via a temporary central line may be impossible when all central veins are obstructed.

METHODS: We report 10 patients (7 males and 3 females) over a 5-year period who lost all venous access sites, due to multiple peripheral venous thromboses with a superior vena cava obstruction or stenosis in 50%. These patients required urgent haemodialysis prior to general anaesthetic for a surgical intervention, but in all cases a traditional central venous line could not be used. They were therefore dialysed via a femoral artery catheter (FAC) before surgical rescue or creation of a more definite vascular access (VA). The median age of these patients was 64.7 years. None were suitable for peritoneal dialysis or urgent transplantation. Thirteen FACs (11F dual lumen dialysis catheter) were inserted into the common femoral artery. Both lumens were perfused continuously with heparinized saline (12 000 IU/24 h). All patients underwent a surgical procedure (rescue of previous access/creation of a new exotic one). First dialysis adequacy was assessed and compared to the rescued or new access.

RESULTS: All patients had been on haemodialysis for a median period of 4.4 years. The mean

number of previous access procedures was 17 (range 10-28). The duration of FAC use ranged from 1 to 12 days (mean 5 days). Dialysis adequacy was satisfactory for all patients. Seven patients had a complex vascular access formed and six had thrombectomy of their previous access. There were two complications related to FAC use, which were distal ischaemia and bleeding. Three patients died from access-related problems at 0, 4.6 and 15.0 months. Seven are still dialysed through their fistula or graft as outpatients with a mean follow-up of 14.0 months (range 0-50.9 months).

CONCLUSION: Femoral artery dialysis is an effective means of haemodialysis as a method to bridge the gap before definitive vascular access formation when all other options have been exhausted.

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