

“The aim of this study was to compare polytetrafluoroethylene (PTFE) grafts versus tunneled cuffed permanent catheters (TCCs) in terms of vascular access and patients’ survival.” Donati et al (2014)

#### References:

Donati, G., Cianciolo, G., Mauro, R., Rucci, P., Scrivo, A., Marchetti, A., Giampalma, E., Golfieri, R., Panicali, L., Iorio, M., Stella, A., La Manna, G. and Stefoni, S. (2014) PTFE Grafts Versus Tunneled Cuffed Catheters for Hemodialysis: Which Is the Second Choice When Arteriovenous Fistula Is Not Feasible? Artificial Organs. September 10th. .

PTFE grafts versus tunneled cuffed catheters for hemodialysis [@ivteam](http://ctt.ec/_7I8U+) #ivteam

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#### Abstract:

Vascular access-related complications are still one of the leading causes of morbidity in hemodialysis patients. The aim of this study was to compare polytetrafluoroethylene (PTFE) grafts versus tunneled cuffed permanent catheters (TCCs) in terms of vascular access and patients’ survival. An observational study was carried out with a 2-year follow-up. Eighty-seven chronic hemodialysis patients were enrolled: 31 with a PTFE graft as vascular access for hemodialysis versus 56 with a TCC. Patients’ mean age was  $63.8 \pm 14.6$  (grafts) versus  $73.5 \pm 11.3$  years (TCCs),  $P = 0.001$ . Significantly more patients with TCC had atrial fibrillation than patients with grafts (30.3% versus 6.5%,  $P = 0.01$ ). In an unadjusted Kaplan-Meier analysis, median TCC survival at 24 months was 5.4 months longer than that of PTFE grafts but not significantly (log-rank test = 1.3,  $P = \text{ns}$ ). In a Cox regression analysis adjusted for age, gender, number of previous vascular accesses, diabetes, atrial fibrillation, smoking, and any complication, this lack of significant difference in survival of the vascular access between TCC and PTFE groups was confirmed and diabetes proved to be an independent risk factor for the survival of both vascular accesses considered ( $P = 0.02$ ). In an unadjusted Kaplan-Meier analysis, a higher mortality was found in the TCC group than in the PTFE group at 24 months (log-rank test = 10.07,  $P < 0.01$ ). The adjusted Cox regression analysis showed that patients with TCC had a 3.2 times higher risk of death than patients with PTFE grafts. When an arteriovenous fistula (AVF) is not possible, PTFE grafts can be considered the vascular access of second choice, whereas TCCs can be used when an AVF or PTFE graft are not feasible or as a bridge to AVF or PTFE graft creation.



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