
Abstract:

The use of central venous catheters (CVC) for hemodialysis (HD) is associated with higher mortality compared to arteriovenous access (AV). However, studies analyzing the influence of the type of vascular access on the survival of very elderly patients (≥75 years) initiating HD are few and involve only a limited number of patients. We studied a cohort of 5,466 incident patients who started HD; of these, 1,841 were aged ≥75. Types of vascular access for HD were classified as either CVC, which included both tunneled and non-tunneled catheters, or AV, which included AV fistula and grafts. The outcome of the study was all-cause mortality during the follow-up period. In the whole cohort, AV use was associated with a survival advantage over CVC use (88 and 63% at 2 and 5 years, respectively, in patients with an AV as compared to 75 and 48% in patients with a CVC) (p < 0.0001). Among patients ≥75, CVC use was associated with a higher number of deaths compared to AV use. Patients ≥75 with an AV showed a greater survival as compared to patients ≥75 with a CVC (80 and 53% at 2 and 5 years, respectively, vs. 68 and 43%; p < 0.0001). Multivariate analysis revealed that CVC use and the presence of arrhythmia were independent risk factors of death in patients ≥75, whereas obesity was associated with greater survival. In conclusion, the type of vascular access has a significant influence on the survival of very elderly patients (≥75) initiating HD. CVC use was associated with poorer survival compared to AV access.
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