The results of our study support primary placement of a brachiocephalic AVF in the octogenarian patient” Drouven et al (2019).

Abstract:
BACKGROUND: The prevalence of end-stage renal disease is accelerating among older age groups. Patient-specific factors in the elderly patient group might advocate for a different vascular access creation approach, in which patency, risk of nonmaturation, and time to cannulation with accompanied prolonged catheter use should be of primary importance. The aim of this study was to determine which vascular access has the best outcomes and to determine whether age is associated with different outcomes after vascular access surgery.

METHODS: Data were obtained from a prospectively maintained database of patients treated between November 2004 and December 2017. Two different patient groups were identified: the octogenarian group, consisting of patients aged ≥80 years; and the control group, consisting of all the other patients. A total of 694 vascular access procedures were included in this study, 65 in the octogenarian group and 629 in the control group. Primary, primary assisted, and secondary patency rates were calculated and compared between groups and vascular accesses. Multivariable analysis was used to determine whether age is an effect modifier in the association between type of vascular access and different patency outcomes.

RESULTS: Mean follow-up was 23.2 months in the octogenarian group and 21.2 months in the control group (P = .210). No significant differences were found in patient survival, with a 5-year survival rate of 63.8% (±5.9%) in the octogenarian group and 57.2% (±2.2%) in the control group (P = .866). Within the octogenarian group, primary failure rate was highest in the radiocephalic arteriovenous fistula (AVF) patients, 42.1% (P = .006). Brachiocephalic AVF had significantly improved assisted patency compared with the other vascular accesses among the octogenarians (P = .016). Age was not an effect modifier in the association between type of vascular access and different patency outcomes. The adjusted analysis, corrected for octogenarian age, diabetes mellitus, hypertension, and sex, showed that brachiocephalic AVF was significantly associated with an increase in primary patency (hazard ratio, 0.70; 95% confidence interval, 0.54-0.90; P = .006) and primary assisted patency (hazard ratio, 0.58; 95% confidence interval, 0.39-0.86; P = .006) compared with other vascular accesses.

CONCLUSIONS: The results of our study support primary placement of a brachiocephalic AVF in the octogenarian patient. A low primary failure rate was achieved with significant improved patency rates compared with the other vascular accesses.
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