

There was no significant difference in the total cost of access care for hemodialysis patients receiving a secondary AVF vs AVG” Al-Balas et al (2018).

Abstract:

OBJECTIVE: We have previously shown that arteriovenous fistulas (AVFs) are more expensive to create and to maintain than arteriovenous grafts (AVGs) in patients undergoing their first access. Because those for whom this first access fails may be a more disadvantaged group, we hypothesized that the cost of a second access may be different from that in the primary access group. With this in mind, we compared access costs in patients receiving a secondary AVF or AVG after their initial AVF failed to mature.

METHODS: This was a retrospective cohort study of 92 patients who received a second vascular access (44 AVFs and 48 AVGs) after their first AVF failed to mature. We quantified the yearly frequency of percutaneous or surgical access interventions and catheter-related bacteremias (CRBs) using a computerized vascular access database. The costs associated with access procedures were quantified using the outpatient prospective payment schedule, and those related to hospitalization for CRB were determined from the diagnosis-related groups fee schedule.

RESULTS: Patients receiving an AVF had fewer percutaneous procedures than those receiving an AVG (2.09 [95% confidence interval, 1.86-2.34] vs 2.61 [2.35-2.88]; $P = .004$), tended to undergo surgical interventions more frequently (1.21 [1.04-1.40] vs 1.00 [0.84-1.17]; $P = .08$), and experienced a similar yearly frequency of CRB hospitalizations (0.40 [0.31-0.52] vs 0.28 [0.20-0.38]; $P = .07$). Patients with a secondary AVF vs an AVG had a similar median yearly cost of percutaneous access interventions (\$3567 vs \$4989 [\$1570-\$9752]; $P = .14$) and surgical access procedures (\$6403 [\$3494-\$13,127] vs \$4728 [\$2563-\$12,254]; $P = .38$) but a higher annual cost for CRBs (\$3405 [\$0-\$12,825] vs \$0 [\$0-\$5477]; $P = .04$). The total yearly access-related cost was similar in both groups (\$19,477 [\$9162-\$36,916] vs \$18,285 [\$6850-\$31,768]; $P = .56$).

CONCLUSIONS: Patients undergoing a secondary AVF required more surgical procedures and sustained more bacteremia complications than patients undergoing a secondary AVG implantation. There was no significant difference in the total cost of access care for hemodialysis patients receiving a secondary AVF vs AVG.



Reference:

Al-Balas, A., Lee, T., Young, C.J. and Allon, M. (2018) Choice of a second vascular access in hemodialysis patients whose initial arteriovenous fistula failed to mature. Journal of Vascular Surgery. June 21st. .

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