

ABSTRACT NO. R3

COMPARISON OF OUTCOMES OF AV FISTULAS AND GRAFTS AT A SINGLE VA MEDICAL CENTER

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Background: Prior to mid- 2003, the great majority of dialysis access procedures done at the G.V. (Sonny) Montgomery VAMC were arteriovenous grafts (AVG). Since that time, in accordance with the nationwide Fistula First initiative, almost all accesses created have been native vein arteriovenous fistulas (AVF). The purpose of this study was to compare the results of these two types of procedures, specifically looking at patency rates and the frequency of interventions required to maintain patency.

Methods: 64 AVG's were placed between 01/2000 and 06/2003 and 50 AVF's were placed between 06/2003 and 02/2006 and followed by chart review and telephone contact. Primary and secondary patency rates were computed using the Kaplan-Meier life table method and the patency rates of the two procedures were compared using the Cox-Mantel log-rank method. The number of interventions (almost all done radiologically) required to maintain patency of the two procedures were compared using a Poisson model.

Results: Primary patency of AVG's was 39% at one year and 26% at two years. Primary patency of AVF's was 44% at one year and 37% at two years. Secondary patency of AVG's was 71% at one year and 63% at two years. Secondary patency of the AVF's was 75% at one year and 72% at two years. According to the log-rank test, neither the primary patency difference nor the secondary patency difference between the two procedures reached significance ($p= 0.085$ and 0.340). The difference between the two procedures in frequency of interventions/month of access use likewise failed to reach significance ($p=0.141$).

Conclusion: Primary and secondary patency of AVF's were slightly better than those of AVG's, but the difference was not statistically significant. The frequency of interventions to maintain patency of AVF's was slightly less than for AVG's but again the difference was not statistically significant.