SP601

SURVIVAL RATES OF ARTERIOVENOUS FISTULA AND ARTERIOVENOUS GRAFTS AMONG HEMODIALYSIS PATIENTS IN DEVELOPING NATION-AN INDIAN STUDY

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INTRODUCTION: Arteriovenous fistula(AVF) is considered superior to Arteriovenous graft(AVG) among vascular access(VA) in hemodialysis(HD) patients and AVG are preferred in elderly owing to poor vessel quality & limited life expectancy. Various co-morbidities may effect the survivability of VA. Economic feasibility also govern the mode of VA in developing nations. Aim of this study is to compare the patencies & survival rates of AVF vs AVG among HD patients in developing nation like India & to assess the superiority since cost difference exists among the two modes(AVF/AVG).

METHODS: HD patients were randomly selected from a tertiary care centre in India over the last 5 years where maintenance HD is being done. A total of 95 HD patients were selected & analyzed for primary and cumulative survival of AVF & AVG.Those >65 years were considered elderly. Primary survival was defined as the first failure after its creation. Total cumulative survival/patency was defined as complete failure after first intervention including total duration of survival of VA. Those patients with two or more failures after intervention were excluded from the study.Survival was compared between AVF & AVG by plotting Kaplan Meier survival curves & Log Rank Tests. p values were obtained for each variable. Hazard Ratios(HR),95%Confidence Interval(C.I) were analyzed. The effects of co-morbidities [Diabetes mellitus(DM),Coronary artery disease(CAD) etc] on the survival were analyzed.

RESULTS: Study had 63 AVF & 32 AVG. The mean age was 57.1 yrs for AVF & 57.2 yrs for AVG. The primary survival was longer for AVF than AVG(40.2 vs 25.1 months)[HR-3.85;CI 1.69-8.72;p=0.001]. No significant difference was seen in

cumulative patency(23.2 vs 28.5 months)[HR-1.508;CI 0.8-2.6;p=0.152].Thrombosis were more in AVG(p=0.007) as was infection(p=0.003) and mortality(0.05). More interventions were done in AVG with more salvageability(p=0.01). Among elderly/DM, no statistical difference was found among survival of AVF vs AVG.

CONCLUSIONS: AVF was better with longer primary patencies. Although interventions were more in AVG, the cumulative survival didn't differ from those of AVF; hence giving the benefit of cost effective AVF feasible for poor patients than AVG. In our study, elderly patients did not show significant difference among AVF/AVG nor did DM. Infections & mortality were more in AVG's. Further multicentre trials among developing nations regarding elderly and elderly diabetics are necessary.

Developing nations like India, where economic restrictions define healthcare, needs cost effective treatment strategies. As in our study, AVF which is cost effective is recommended among all groups of patients including diabetics. This results in tremendous cost savings and less health care burden among patients in low economic countries where health care insurance is yet to penetrate its populations and where government aided schemes are limited.