

Letter to the Editor

Off-pump coronary artery bypass grafting in patients on chronic hemodialysis

Dear Editor,

The number of patients requiring hemodialysis (HD) has been increasing worldwide. Coronary atherosclerosis is the leading cause of death in this population yet approximately one third of patients on HD die secondary to cardiac events such as myocardial infarction and congestive heart failure. However optimal strategy for coronary revascularization in HD patients is still controversial. Tabary and Fazli compared results of on pump Coronary Artery Bypass Graf (CABG) surgery in hemodialysis patients and in patients with normal renal functions¹.

Recently, number of coronary artery bypass grafting (CABG) for dialysis patients increase, but the mortality is still high at 3.4%-17.1%². Renal failure is a well-known risk factor for cardiac operations performed under cardiopulmonary bypass. Recently Off-pump CABG in patients requiring dialysis has been evaluated in several small retrospective studies and has shown decreased blood loss, reductions in ventilator and intensive care unit times, less need for postoperative dialysis, and lower costs. Fluid overload and pulmonary congestion related to cardiopulmonary bypass is minimum in off-pump CABG, which enables early extubation and early reinstitution of the hemodialysis schedule. Furthermore off pump CABG generates a limited systemic inflammatory reaction Secondary to its less invasive nature³, general condition of patients on hemodialysis, presence of comorbidities, tendency for infection and coagulopathy render off-pump coronary surgery a possible alternative technique for these patients². Today off-pump CABG is indicated in patients with calcified aorta, stroke, and renal failure.

In summary, CABG technique for patients on HD must be individualized. Off-pump CABG can be safely performed in hemodialysis patients. Off-pump operations decrease mortality, morbidity and shorten hospital stay.

Conflict of Interest

The Authors declare that they have no conflict of interests.

References

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