

RENAL ARTERY STENTING FOR RENAL ARTERY STENOSIS IN PATIENTS WITH CHRONIC HEMODIALYSIS AND UNCONTROLLED HYPERTENSION

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Background: Renal artery stenting with a coronary like system represents a new, relatively safe, treatment option for patients with renal artery stenosis (RAS). The effect of relief of RAS with this system in patients on chronic hemodialysis with uncontrolled hypertension has not been reported.

Methods: Patients on dialysis with uncontrolled hypertension and undergoing chronic hemodialysis with RAS were treated. A novel coronary like system was used for renal artery stenting with a 7F coronary guiding catheter, low-profile peripheral or coronary balloon with a coronary shaft over a 0.018" or 0.014" wire and the NIREnal™ stent.

Results: 6 patients were treated. 5 males with an age range of 48-63 years. 3 patients suffered from bilateral RAS. Acute stent deployment was successful in all cases. There were no episodes of acute or subacute stent thrombosis. Clinical follow up (1 month to 2 years) revealed improved control of hypertension in all patients. 2/6 patients had improvement of renal function to allow the cessation of regular dialysis. In both these cases total occlusion of the renal artery was opened and the vessel stented. There was no evidence of restenosis.

Conclusion: A novel coronary-like stent system for treatment of RAS is both feasible and safe in patients on chronic hemodialysis with uncontrolled hypertension. These encouraging results imply that dialysis patients who have not undergone investigation for RAS may also benefit from diagnosis and treatment of RAS is present. Further studies are needed to elucidate the long term benefits of this promising treatment.