

**#23 LONG-TERM OUTCOMES AFTER PERCUTANEOUS THERAPY FOR RENAL ARTERY FIBROMUSCULAR DYSPLASIA**

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**Background:** Fibromuscular dysplasia (FMD) accounts for 10 percent of cases of renal artery stenosis. Percutaneous intervention for symptomatic renal artery FMD has replaced surgical therapy as first-line treatment in most centers. This study evaluates the anatomic and functional outcomes of endovascular therapy for symptomatic renal artery FMD at a regional tertiary academic medical center.

**Methods:** A retrospective analysis of records from patients who underwent renal artery angioplasty for FMD between January 1990 and June 2002 was performed. The primary indication for intervention was poorly-controlled hypertension (DBP greater than 90; on 3 or more medications). Fifteen patients were identified (13 female, average age 42, range 12-75). There were 18 attempted interventions (3 bilateral stenoses). 60% of contralateral renal arteries were normal (33% had a <50% stenosis, 7% were non-functional or absent).

**Outcomes:** PTA was successfully performed (defined by <30% residual stenosis) on 17 vessels (96%). No stents were used. 73% of these lesions were in the proximal renal artery and 27% were in the mid-renal artery. The procedure-related complication rate was 11% (all minor). Renal function was preserved in all patients. There were no periprocedural or 30-day mortalities. All patients were alive at follow-up. Primary patency was 76% at 8 years. Assisted primary patency was 93% at 8 years. The restenosis rate was 18% at 8 years. Clinical benefit (improved or cured hypertension) was seen in 66% of patients, 92% maintained this benefit at 8 years by life-table analysis.

**Conclusions:** Percutaneous endovascular intervention for clinically symptomatic FMD of the renal arteries is technically successful and safe. Excellent assisted patency rates and low restenosis rates are seen. Most patients demonstrate immediate clinical benefit with good long-term functional outcomes. Endovascular intervention is technically successful and enhances the care in this subset of hypertensive patients.