

END STAGE KIDNEY DISEASE IN A YOUNG MALE DUE TO FIBRROMUSCULAR DYSPLASIA (FMD) OF RENAL ARTERY

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FMD is more common in females and ischemic renal failure rarely occurs with FMD of renal artery. In this context, we report a case of End Stage Renal Disease in a young male due to renal artery FMD. Review of literature did not reveal similar cases.

A 35 year old African-American male, non smoker with history of hypertension for one year not on medications comes in with headache and fatigue for 2 weeks. Review of systems was positive for new onset metallic taste, reduced urine output and negative for nausea, vomiting, arthralgias or intravenous drugs. Physical Examination revealed BP of 261/70mm Hg, no signs of fluid overload and a normal system examination. Initial labs showed Hb13.5gm/dl, Potassium 3.2mmol/l, Creatinine (Cr) 16.8mg/dl, Blood urea (BUN) 89 mg/dl with 4+ proteinuria. USS kidneys showed no hydronephrosis. Baseline labs were not available. BP was well controlled with an aggressive medical regimen. Renal functions deteriorated next day with Cr 19.7 and BUN 97 when hemodialysis (HD) was started. Patient remained dialysis dependent with stable BP maintained on antihypertensives. Renal flow scan showed grossly normal sized kidneys with markedly decreased perfusion and parenchymal intake. Subsequently underwent a renal arteriogram that showed string of beads or spring coil appearance of distal main right renal artery consistent with FMD of renal arteries. Angioplasty was performed and patient continues on HD after 8 months of the initial presentation.

Among adults, FMD is more common among females with a prevalence 2 to 10 times higher compared to males. Renovascular hypertension mainly in women less than 50 years is the most common manifestation of renal artery FMD. Although angiographic progression of FMD can occur particularly in smokers, progressive worsening of kidney function is rare. Renal arteriography is the first test in patients at high risk for renovascular hypertension secondary to FMD that has a classic description of "string of beads appearance". The rationale for renal artery revascularization by surgery or percutaneous angioplasty with or without stenting is control of hypertension.