



Renal Artery Stenosis with Bizarre Anastomosis

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Introduction:

Renovascular Disease is one of the most common causes of secondary Hypertension (HTN), (1-10%), and renal artery stenosis (RAS) is the most common cause of the renal causes for secondary HTN. There are two pathologies recognized to cause RAS: atherosclerosis in the elderly (90%) and fibromuscular dysplasia (10%) in young patients who are typically female and 20-40 years old. RAS typically requires multiple antihypertensives to control blood pressure.

Case presentation:

We are presenting a case of a 23 year old male who had elevated blood pressure during a routine pre-employment examination which was found to be due to RAS. He only presented with the symptom of occasional headache which responded to NSAIDs, but denied blurry vision, lightheadedness, dizziness, palpitations, chest pain or shortness of breath. He was put on 4 antihypertensive medications including 2 classes of diuretics, but constantly elevated blood pressures at follow up appointments. On a physical exam, the only abnormality found was a cardiac apex heave, no abdominal or renal bruits were heard. Lab work was normal. Renal duplex and renal CT angiography illustrated severe Left RAS. Renal artery angiogram was performed which confirmed severe Left RAS with occlusion and tortuous anastomosis.

Discussion:

Suggestive findings of RAS include being on several antihypertensives without control of blood pressure, a renal duplex should be performed with confirmation with renal CT angiography or renal catheterization so intervention can be performed at the same time. Typically unilateral RAS can be managed with an antihypertensive regimen. PTA can be considered as an alternative to reduce medication burden and side effects. In our case, the patient failed hypertensive regimen and even with PTA, the patient required antihypertensives after becoming hypotensive after the procedure requiring pressors in the ICU.

