

Research paper on renal stenosis

[Health & Medicine](#), [Disease](#)



Renal artery stenosis is “ a narrowing of arteries that carry blood to one or both of the kidneys”. The organs affected by the disease are the renal arteries and the kidneys. The renal arteries which branch from the aorta carry the blood from the heart to the kidney. If the renal arteries become narrow, the blood flow to the kidneys will be restricted which may impair the kidneys’ function.

The major cause of renal artery stenosis is atherosclerosis which is when the plaque made up of fats and cholesterol builds up on the walls of the blood vessel. Another rare cause of renal artery stenosis is fibromuscular dysplasia wherein “ the cells in the walls of the arteries undergo abnormal growth”.

Those who are at risk of renal artery stenosis are people with high cholesterol levels, hypertensive, diabetics, obese, with a family history of early heart disease, smokers, those who lack physical activity, men older than 45 and women older than 55 and those whose diet are high in fat, cholesterol, sodium, and sugar.

The symptoms of renal artery stenosis include high blood pressure which does not respond to treatment, severe hypertension that develops before the age of 30 or greater than age 50 and one kidney which is smaller compared to the other kidney which is normal in size. The symptoms of a decrease in kidney function are increase or decrease in urination, edema, drowsiness or tiredness, generalized itching or numbness, dry skin, headaches, weight and appetite loss, nausea, vomiting, sleep problems, trouble concentrating, darkened skin and muscle cramps.

Renal artery stenosis can be diagnosed through a blood test and urine test, a kidney ultrasound, a doppler ultrasound and a magnetic resonance

arteriogram and computed tomographic angiography. These tests will determine the kidney's size, structure, function and the speed of the blood flow from the arteries to the kidney.

Patients with renal artery stenosis may suffer from possible complications such as chronic kidney disease, coronary artery disease, stroke or peripheral vascular disease. Furthermore, renal artery stenosis may also lead to kidney failure or end-stage renal disease .

The initial treatment for renal artery stenosis is to control high blood pressure. This is done by prescribing ACE inhibitors or ARB medications with or without a diuretic. The prescription of these medications depends on the level of kidney function. If there is no evidence of kidney dysfunction or hypertension, no medication is required but close monitoring of both symptoms must be done. Medicines which aim to lower the cholesterol levels may also be given. Invasive procedures are available for the treatment of renal artery stenosis. One treatment that may be done is through angioplasty wherein the blocked renal artery is opened up. A stent is then placed to keep the area open. For other patients, a vascular surgery may be done to bypass the narrowed or blocked portion of the artery. Another alternative is the removal of the non-functioning kidney.

Works Cited

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