

Renal Artery Disease

The renal artery is the main artery that supplies blood to the kidneys. Disease of this blood vessel may result in narrowing, and kidney failure. Renal artery disease is usually seen in older individuals who may have vascular disease in other areas, but may also occur in younger patients for a variety of causes.

Renal artery disease may be responsible for difficult to treat hypertension, and treatment of the renal artery disease can improve or even cure the hypertension, and may improve kidney function.

Symptoms and Diagnosis

Like most vascular disease, there are few early symptoms apart from hypertension. Turbulent flow (a bruit) may be detected on clinical examination, but investigations hold the key to diagnosis and quantification of renal artery disease. Useful investigations include:

- Renal arterial duplex ultrasound.
- Computerized tomography (CT) scan.
- Magnetic Resonance Imaging (MRI/MRA)
- Renal Angiogram
- Nuclear Medicine Scanning.

Treatment Options

Treatment depends on the extent and severity of the symptoms, and on the degree of stenosis and the quality of the kidney at the time of diagnosis.

Treatment options may include:

- Medical therapy.
- Angioplasty and Stenting.
- Open surgical bypass or endarterectomy.