

In Nephrology

Renovascular hypertension is an important cause of hypertension in the young, however it is often missed.

Suspect renovascular hypertension if

- Severe hypertension sometimes Hypertensive emergency
- Difficult to control
- Flash pulmonary oedema
- Asymmetry of pulses (if renovascular hypertension is due to Takayasu's arteritis)
- Renal bruit
- Papilledema
- Worsening of creatinine after initiation of ACEi or ARBs (if bilateral renal artery stenosis)
- Hypokalemia

Causes of Renovascular hypertension:

- Fibromuscular dysplasia which occurs in young, is mostly unilateral and is associated with string of beads sign in angiogram.
- Takayasu's arteritis usually in females. It is associated with involvement of other branches of aorta and hence involvement of upper limbs, asymmetry of pulses etc may be seen. Diagnosis is by angiogram.
- Atherosclerotic renal artery stenosis- It is seen in elderly and is usually bilateral. Other important causes may be renal artery dissection, thrombosis etc.

Investigations:

- Hypokalemia may be seen.
- Ultrasound and doppler of renal arteries may show disparity in renal size of ≥ 1.5 cm
- Color doppler may show decrease in flow on the involved side.
- DTPA renogram shows delayed uptake on the affected side.
- Angiography is the gold standard for diagnosis



The Medical **Bulletin**

Differential diagnosis:

- Renal parenchymal hypertension- associated with proteinuria, hematuria or impaired renal function and altered renal echotexture.
- Pheochromocytoma – associated with panic attacks, perspiration and elevated plasma and urine metanephrines
- Conn’s syndrome- associated with hypokalemia and elevated aldosterone with bilateral adrenal hyperplasia or adrenal adenoma on imaging.
- Cushing’s syndrome associated with Cushingoid features and positive dexamethasone suppression test.
- Monogenic or genetic hypertension usually associated with onset in young age and a positive family history.

Treatment:

For FMD usually angioplasty is performed while atherosclerotic renal artery stenosis is managed medically, and stenting or bypass is done only if medical therapy fails.

NEVER MISS RENOVASCULAR HYPERTENSION, IT RESPONDS WELL TO TREATMENT

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