

عنوان مقاله:

Effect of Renal Artery Stenting on Blood Pressure, Glomerular Filtration Rate and Left Ventricular Mass in Hypertensive Patients with Severe Atherosclerotic Renal Artery Stenosis

محل انتشار:

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خلاصه مقاله:

Background: Many small trials showed a significant improvement in blood pressure following renal artery stenting in patients with severe atherosclerotic renal artery stenosis, but data on renal function improvement is more conflicting. Recently, few trials have been conducted to evaluate the effect of this procedure on Left Ventricular Mass (LVM) and Left Ventricular Mass Index (LVMI). **Objectives:** The aim of this study is to determine the effect of renal artery stenting on Blood Pressure, estimated Glomerular Filtration Rate (eGFR), Left Ventricular Mass (LVM), and Left Ventricular Mass Index (LVMI) in patients with severe atherosclerotic renal artery stenosis. **Methods:** This is a prospective interventional study performed on forty patients with ischemic heart disease and medication resistant hypertension, who had severe (70%) atherosclerotic renal artery stenosis and underwent renal artery stenting. Blood pressure, LVM, LVMI and eGFR before renal artery stenting and after six months were assessed in these patients. **Results:** There were significant reduction in systolic blood pressure (from 175.50 to 137.30 mmHg) ($P < 0.001$), and diastolic blood pressure (from 103.45 to 84.30 mmHg) ($P < 0.001$). Also, there were significant decrease in LVM (from 307.73 to 259.34 g) ($P = 0.004$) and LVMI (from 174.70 to 148.01) ($P = 0.004$). LVM reduction was independent of SBP and DBP reduction ($P = 0.376$ and $P = 0.196$, respectively). **Conclusions:** Renal artery stenting reduces Blood pressure and leads to regression of LVM independent of blood pressure reduction. Regardless of baseline eGFR, our study failed to find a significant increase in glomerular filtration rate.

