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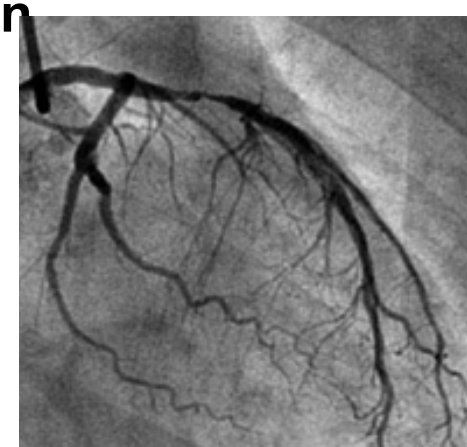
Concomitant coronary and renal revascularization improves left ventricular hypertrophy more than coronary stenting alone in patients with ischemic heart and renal disease

Key words: **Percutaneous transluminal renal artery stenting, Heart failure with preserved ejection fraction, Coronary artery disease, Renal artery stenosis**

Research Summary

This study focused on whether percutaneous transluminal renal artery stenting (PTRAS) could further improve left ventricular hypertrophy and reduce adverse events based on coronary stenosis resolved for patients with coronary artery disease (CAD) and atherosclerotic renal artery stenosis (ARAS) than percutaneous coronary intervention (PCI) alone and summarized the key effects PTRAS played in the following aspects:

- **Left ventricular mass index reduction**
- **Blood pressure control**
- **Renal function improvement**
- **Left ventricular ejection fraction improvement**
- **Major adverse clinical events reduction**

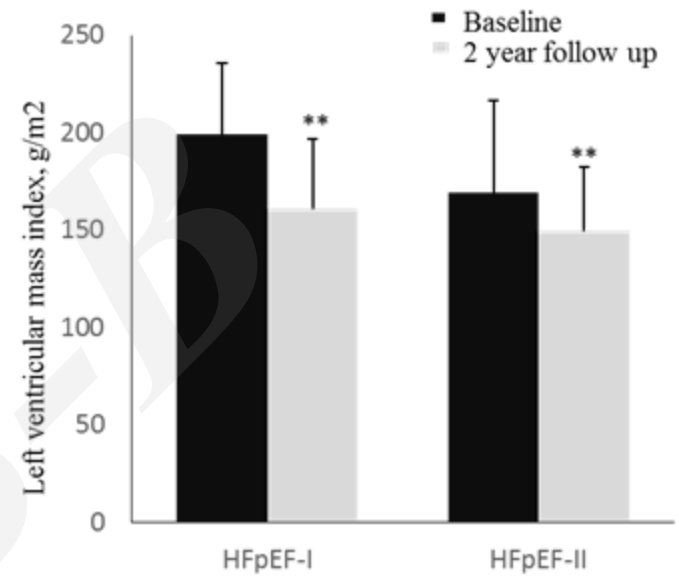


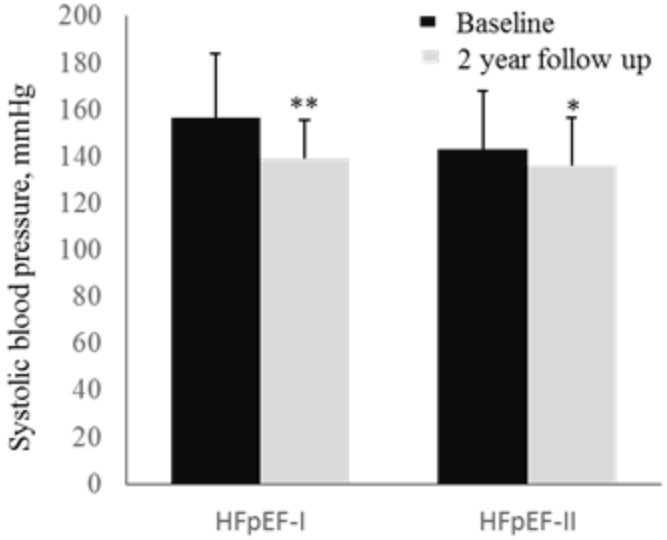
Innovation points

- **Focused** on the patients with CAD and ARAS, who had PCI to guarantee the myocardium perfusion.

- **Golden** diagnostic technique of catheter selective angiography to diagnose CAD and RAS to prevent the false negative or positive result.

- **Emphasis** of the new finding that PCI&PTRAS had more benefit over PCI&medication alone, which has different opinion on ARAS treatment in this high-risk population.





Innovation points

A series of tables were generated to summarize the study population characteristics and outcome.

Table 1 | Clinical Characteristics of the Study Population at Baseline

Table 2 | Comparison of contrast volume, CIN prevalence, average number of coronary stents in two groups

Table 3 | Linear Regression Analysis for ΔLVMI

Table 4 | Comparison of MACEs and hospitalization days in different group

Table 5 | Multivariable Logistic Regression Analysis for overall MACEs