NR3C2 Genotype is Associated with Spironolactone Response in Heart Failure With Preserved Ejection Fraction Patients from the Aldo-DHF Trial

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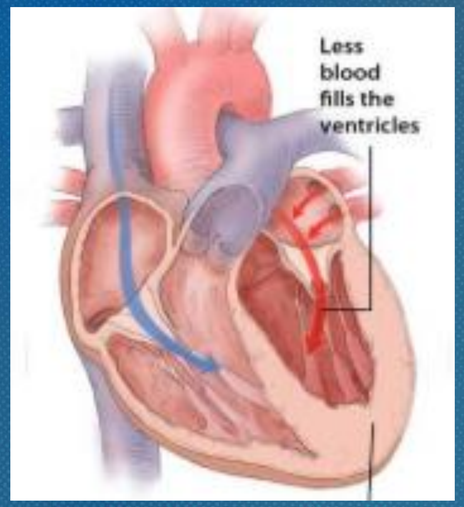
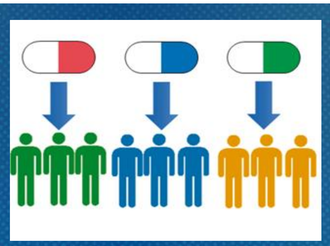
Background



	Guideline-Directed Medical Therapies				
	ACE Inhibitors	Angiotensin Receptor Blockers	Angiotensin Receptor-Neprilysin Inhibitors	Beta-Blockers	Aldosterone Receptor Antagonists
HFpEF	✗	~✓	✗	✗	~✓
HFrEF	✓	✓	✓	✓	✓



Methods

We sought to determine if variants in *CYP11B2* (involved in aldosterone synthesis) and *NR3C2* (target protein of spironolactone) genes were associated with the change in E/e′ (Δ E/e′) from baseline to 12 months with spironolactone in Aldo-DHF patients.
(Spironolactone n=196, Placebo n=194)

- For each variant, a linear regression of Δ E/e’ was performed separately in the spironolactone and placebo arms
  - Adjusting for age, sex, and baseline E/e’.
- ΔE/e’ was also compared between treatment arms via estimated marginal mean difference (MMD; $\Delta E/e'_{SP} - \Delta E/e'_{PL}$).

Results

Spironolactone therapy may be more effective for improving diastolic heart failure in *NR3C2* rs5522G carriers.

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