Six months clinical and echocardiographic outcome of angiotensin receptor-neprilysin inhibitor (sacubitril/valsartan) therapy in heart failure patients with reduced ejection fraction

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KASR ALAINY

No conflicts of interest to declare

Background

The clinical outcome of Sacubitril/Valsartan in reducing the incidence of death from cardiovascular causes or first hospitalization for worsening heart failure was demonstrated in PARADIGM-HF trial. These benefits may be related to effects on hemodynamics and cardiac remodeling.

Objectives

Evaluating the clinical and echocardiographic outcome of Sacubitril/ Valsartan therapy in HFrEF patients.

Methods

A Single center, prospective, cohort study of HFrEF patients (n=100) who were treated for a median duration of 6 months.

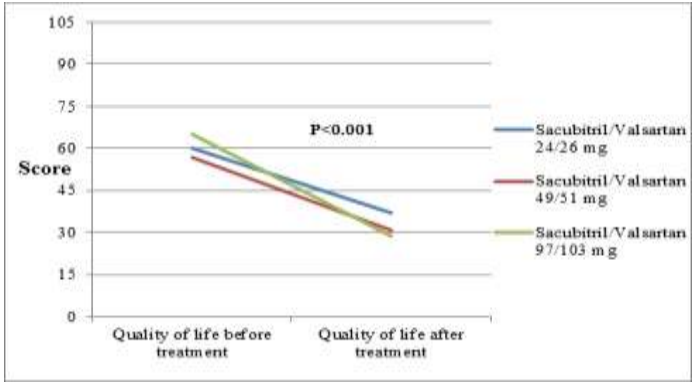
Results

Among 100 patients (median age, 56.5 years; 76% men), at 6 months, we conducted comparison analysis according to dose of Sacubitril/Valsartan. About 29% patients were treated with 24/26 mg, 39% were treated with 49/51 mg and 32% were treated with 97/103 mg.

Variable	Dose 24/26 mg Median	P-Value	Dose 49/51 mg Median	P-Value	Dose 97/103 mg Median	P-Value
LVEDV, (ml)						
Before treatment	184		173		179	
After treatment	151	.013	154	.001	140	<0.001
Δ changes	-33		-19		-39	
LVESV, (ml)						
Before treatment	152		122		130	
After treatment	115	.008	110	.001	85	<0.001
Δ changes	-37		-12		-45	
LVEF, (%)						
Before treatment	30		30		31	
After treatment	32	.120	34	<0.001	39	<0.001
Δ changes	+2		+4		+8	

Clinical trial registration: NCT03816306

Post Hoc analysis between doses	24/26 mg vs. 49/51 mg	P-Value 24/26 mg vs. 97/103 mg	49/51 mg vs. 97/103 mg
Δ LVEDD	.601	.397	1.0
Δ LVESD	1.0	.287	1.0
Δ LVEDV	1.0	.351	1.0
Δ LVESV	1.0	.063	.071
Δ LVEF	.582	**.003**	.051
Δ EPASP	.58	**.012**	1.0



Conclusions

Sacubitril/Valsartan had shown improvement of functional capacity, quality of life, and echocardiographic parameters (cardiac volumes, LVEF and EPASP) at 6 months. More favorable effect are noted in patients with higher blood pressure who can tolerate higher dose of Sacubitril/Valsartan.