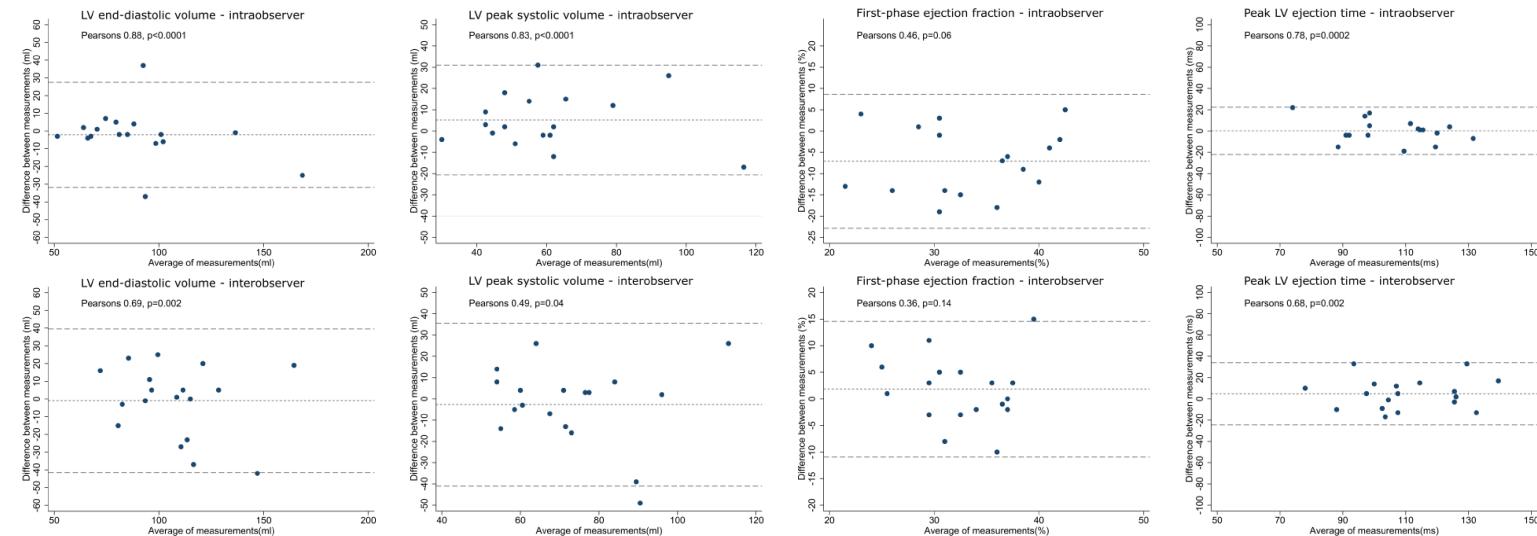


1

2 Supplemental material

3 Carter-Storch EF1 aortic stenosis

4 Supplementary figure 1

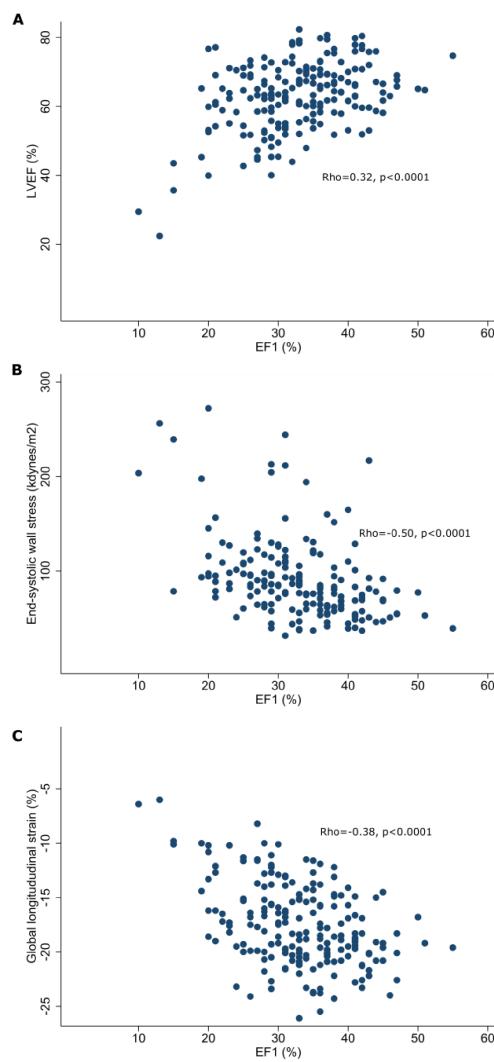


5

6 Top row: Bland-Altman plot showing intraobserver difference in (from left) LV end-diastolic volume, LV peak-systolic volume, first-phase ejection
7 fraction and LV peak ejection time. Bottom row: Similar curves for interobserver differences.

8

Supplementary figure 2



Association between EF1 and A) LVEF, B) wall stress and C) global longitudinal strain.

EF1 is first-phase ejection fraction and LVEF left ventricular ejection fraction.

Supplementary table 1 - Patient characteristics according to mean gradient among asymptomatic patients

Number	Mean gradient < 40 mmHg	Mean gradient ≥ 40 mmHg	p-value
	42	52	
Baseline characteristics			
Age (years)	73±10	74±7	0.50
Male gender	25 (60)	30 (58)	0.86
Hypertension Treatment	29 (69)	32 (62)	0.45
Biomarkers			
Brain natriuretic peptide (pg/mL)	52 [28-76]	55 [29-108]	0.45
Echocardiography			
LV end-diastolic volume (ml)	88±22	95±20	0.16
LV end-systolic volume (ml)	32±11	33±11	0.73
LV ejection fraction (%)	63±8	65±7	0.22
First-phase ejection fraction (%)	34±7	35±6	0.44
Global longitudinal strain (%)	-18.7±4.1	-19.2±2.9	0.50
Stroke volume index (ml/m ²)	42±7	45±7	0.03
LV ejection time (ms)	305±27	316±27	0.06
LV peak ejection time (ms)	101±15	110±15	0.004
LV mass index (g/m ²)	103±16	109±24	0.11
Left atrial volume index (ml/m ²)	33±7	37±9	0.04
E/e'	12±4	12±5	0.47
Diastolic grade ≥ 2	3 (7)	12 (23)	0.04
MRI			
Late gadolinium enhancement - all types	11 (37)	10 (23)	0.19
Load			
Systolic blood pressure (mmHg)	142±15	140±15	0.44
Systemic arterial compliance (mmHg/ml/m ²)	1.3±0.3	1.4±0.4	0.18
Valvulo-arterial impedance (mmHg/ml/m ²)	4.3±0.7	4.3±0.6	0.89
Wall stress (kdynes/m ²)	77 [56-87]	76 [53-90]	0.72
Aortic valve area (cm ²)	0.91±0.13	0.78±0.18	0.0001
Aortic mean gradient (mmHg)	34±3	53±14	<0.0001

LV is left ventricular