evaluated. We sought to describe according to LV-longitudinal strain (LS), both the phenotype with and without LV-systolic dysfunction and to assess its prognostic value in the multicentric prospective cohort KaRen.

Method LS was assessed by 2-dimensional speckle-tracking echocardiography at baseline in 348 patients with HFpEF enrolled in KaRen (prospective international multicenter registry on HFpEF). At a median follow-up of 1.5 years (interquartile range, 0.8—2.7 years), 43% of the patients experienced the primary composite outcome of cardiovascular death, HF hospitalization. Impaired LS, defined as an absolute LS < 16%, was present in 40.5% of patients but was not a predictor of the composite outcome. The phenotype with impaired LS was characterized by some key feature detailed Figure 1.

Results Main echocardiographic results are in Figure 1.

Conclusion Impaired LV- systolic function is not systematic in HFpEF. The fact that LS is < 16% is not associated with an increased risk of death or HF-hospitalisation. (Figure 1).

&17	No, N = 141 % (n)	Yes, N = 207 % (n)	p-value*
Cardiac Index	2.72 ± 0.80	2.48 ± 0.68	0.0130
LV mass indexed, g/m²	124 ± 34	127 ± 37	0.4372
RV diameter, mm	30.7 ± 7.93	31.6 ± 5.76	0.2504
LV EF,%	65.6 ± 5.93	60.1 ± 6.69	<.0001
Stroke volume, mL/m²	31.7 ± 8.71	30.5 ± 8.46	0.2446
LV end diastolic diameter, mm	46.8 ± 6.23	47.6 ± 6.10	0.2482
LV end systolic diameter, mm	30.5 ± 5.97	33.2 ± 6.68	0.0003
LV fractional shortening, %	35.4 ± 6.96	30.7 ± 7.63	<.0001
e', cm/s	7.96 ± 2.50	7.90 ± 2.66	0.8469
Tricuspid regurgitation, m/s	2.87 ± 0.71	2.87 ± 0.59	0.9926
LA volume indexed, mL/m²	48.1 ± 18.6	50.6 ± 17.5	0.2593
E-wave deceleration time, ms	207 ± 84	185 ± 68	0.0072
E/A ratio	1.53 ± 1.09	2.08 ± 1.44	0.0006
E/e'	12.39 ± 5.04	13.25 ± 6.56	0.2016
TAPSE, mm	18.8 ± 4.38	16.0 ± 4.58	<.0001
RV shortening	0.44 ± 0.09	0.43 ± 0.09	0.2087

Figure 1 Results according to GLS.

Disclosure of interest The authors declare that they have no competing interest.

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Poster n°49

The effect of systemic hypertension on right ventricular function: An echocardiographic study

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Introduction Left ventricular structural and functional changes in patients with arterial hypertension are well established. However, the influence of arterial hypertension on right ventricular (rV) remodeling is still being investigated. The aim of the current study was to determinate the rV systolic and diastolic function in uncontrolled hypertensive patients and compare these echocardiographic findings to the results of control subjects.

Method We included 40 patients with uncontrolled hypertension without any associated pathology (group A) and 40 healthy subjects control (group B). Subjects included in both groups were free from diabetes, valvular disease and ischemic heart disease. The 2 groups have a comparable average age and sex-ratio.

Results There was a significant increase in parietal thickness, left atrium diameter, left ventricular mass index in group A. The left ejection fraction was comparable between two groups. The diastolic diameter of the RV, the ejection fraction of the RV, the tricuspid annular plane systolic excursion (TAPSE) and the fractional area change were comparable between the 2 groups. The systolic velocity S' measured at the level of the annulus tricuspid and the global longitudinal strain rate were significantly lower in hypertensive patients(7 ±2 cm versus 13 ± 2 cm/s, $P < 0.01$) and (− 13. ± 2.6% versus − 19.1 ± 2% $P < 0.01$) reflecting subclinical RD systolic dysfunction. In addition, the early (Ea) peak velocity at the tricuspid annulus was significantly lower in group A (6.8 ± 1.9 cm/s versus 12.1 ± 4.1), $P < 0.01$ with a consequence lower Ea/Aa suggestion a RV relaxation disorder.

Conclusion Our study revealed a RV dysfunction in uncontrolled hypertension patients, Doppler tissue and 2D strain were very powerful in detection of RV abnormalities at an early subclinical stage.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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Poster n°50

Prognostic value of longitudinal strain compared to conventional parameters of right ventricular function in heart failure with reduced ejection fraction

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Introduction Right ventricular (RV) systolic dysfunction is an important predictor of poor outcomes in heart failure (HF) with reduced ejection fraction (EF), usually evaluated by conventional parameters. RV longitudinal strain (RVLS) is recently proposed to be more sensitive tool to evaluate RV function. The purpose of this study was to compare the prognostic value of strain and conventional parameters of RV function in HF with reduced EF.

Method Echocardiography was performed in all patients discharged after decompensated HF with EF < 40% between January and June 2017. We measured TAPSE, S velocity, fractional area change(FAC). RVLS was assessed by averaging all segments in apical view. RV dysfunction was defined if at least one of the following parameters was impaired:TAPSE < 17 mm, FAC < 35%, Sve-locity < 9.5 cm/s or Strain of free wall RV < 20%. Our patients have been followed for 1year. The end point was all major cardiac events (mortality, readmission).

Results During a mean follow-up of 283 ± 67 days, major cardiac events rate were 28.7% after 3 months and 38.3% in 1year. RV dysfunction was associated with major cardiac events both in 3 months ($P = 0.01$) and in 1 year ($P = 0.04$). In patients with RV dysfunction, the survival rate decreased by 38,4% in 1year and by 60% when all parameters were impaired. The overall performance for the prediction of cardiac events was greatest for RVLS (area under the curve: 0.76; TAPSE: 0,68; FAC: 0.67). The cut-off value of RVLS was − 11,5% to predict cardiac events in 3 months (se = 65%, sP = 80) and in 1 year (se = 68%, sP = 75). In multivariate analyses, RVLS remained an independent predictor of major cardiac events in 3months (OR = 21,6; 95%CI:1,5-309; $P = 0.02$) and in 1 year (OR = 8,4; 95%CI: 1,3—52; $P = 0,02$).