

**Conclusion** In HF with reduced EF, RVLS is a stronger predictor of outcome than RV conventional parameters, providing a stronger prognostic stratification.

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

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#### Poster n°51

### Global longitudinal strain as a powerful prognosticator in heart failure with reduced ejection fraction

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**Introduction** Left ventricular (LV) systolic dysfunction is an important predictor of cardiovascular death and readmission, usually evaluated by LV ejection fraction (LVEF). Global longitudinal strain (GLS) obtained by 2D speckle tracking is recently proven to be more powerful than conventional EF in detecting changes in myocardial function. The purpose of this study was to compare the prognostic value of GLS and conventional LVEF in HF with reduced EF.

**Method** In this study, echocardiography was performed in all patients discharged from our center after decompensated systolic HF between January and Jun 2017. The echocardiographic images were analysed to obtain conventional and strain parameters. Our patients have been followed for 1 year. The end point was all cardiac events (mortality, readmission).

**Results** During a mean follow-up of  $283 \pm 67$  days, 14 (17.7%) patients were died, and 22 patients (28.2%) were rehospitalized. Patients who died during follow-up had significantly lower LVEF (20% vs. 26%,  $P=0.05$ ) and mean GLS ( $-6.85\%$  vs.  $-8.9\%$ ,  $P=0.03$ ). Mean GLS was also significantly low in rehospitalized patients ( $-7.4\%$  vs.  $-9.2\%$ ,  $P=0.017$ ), but LVEF was approximately same (24.9% vs. 25.8  $P=0.520$ ). After adjusting for age, gender, BMI, heart rate and conventional echocardiographic parameters, GLS remained an independent predictor of mortality and rehospitalisation (HR: 1.19 95% CI: 1.04–1.37,  $P=0.032$ ) and also had a higher Harrell's C statistics than LVEF (0.65 vs. 0.63).

**Conclusion** In patients with severe systolic HF, GLS is an independent predictor for all cardiac events, and it's proved to be the most powerful when compared to conventional parameters as LVEF.

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

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#### Poster n°52

### Fatal scorpionic myocarditis: Interest of circulatory assistance (ECMO)

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**Introduction** Scorpion envenomation represents a real public health problem, especially during the summer period in the countries of North Africa. It is characterized by a large clinical polymorphism ranging from the simple local pain to the point of sting at a cardiovascular collapse resulting. A small number of patients will present with cardiogenic shock unresponsive to standard medical therapy.

**Method** We report 5 patients with scorpion myocarditis, who were hospitalised in Intensive Care Unit and received ECMO adjuvant therapy from February 2014 to August 2018, were analysed.

**Results** The median age was 25 years (range 11–39 years). Common symptoms at diagnosis included local pain (100%), chest pain (60%), shortness of breath (100%). Electrocardiography revealed dysrhythmia in 1 patient (VT), T-wave inversion and ST depression in the inferolateral in 3 patients and in anterior leads in 1 patient. Echocardiography demonstrated in all patients severe global hypokinesia of both right and left ventricles with elevated filling pressures and mid mitral regurgitation and left ventricle ejection fraction less than 35%. The diagnosis of cardiogenic shock with pulmonary edema was made for all patients. Because of severe presentation and worsened hemodynamic status despite raising dobutamine doses (20  $\gamma$ /kg/min) and adrenaline (0,3  $\gamma$ /kg/min) adjunction, we decided to initiate cardiopulmonary support by ECMO. The five patients were successfully weaned from ECMO treatment. The total survival rate was 100%. Although myocardial damage and dysfunction were severe During the follow-up period, cardiac function recovered normally in the 5 surviving patients after a period of 1 month.

**Conclusion** The severity of scorpion envenomation results mainly from left cardiac dysfunction with pulmonary edema and/or shock. Adrenergic myocarditis, toxic myocarditis and myocardial ischemia are the main mechanisms.

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