untyped. No statistically significant difference was found between TTR and AL patients for the various imaging modalities. We observed 71% of men, aged 66, NYHA stage 2.4 on average. In all patients, cardiac biomarkers rates were increased. Myocardial mass and interventricular septal thickness were increased (190g/m² and 19mm), restrictive filling pattern was observed in 83% of patients. Despite a relatively preserved left ventricular ejection fraction, Global Longitudinal Strain was impaired at – 11%, with an apical sparing. Scintigraphy showed a frequent myocardic fixation (69%), slightly more intense in TTR patients. Cardiac MRI showed a constant late gadolinium enhancement, more extended in AL patients.

Conclusion: We didn’t observe the differences described between CA types, probably because of a lack of statistical power. This encouraged us to develop a protocol for multidisciplinary evaluation of CA, to improve the management of this disease, and to keep on evaluating the diagnostic accuracy of these imaging modalities.

0157

Echocardiographic predictors of exercise capacity in Algerian patients with heart failure and systolic dysfunction: role of mitral regurgitation

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Introduction and objectives: Patients with heart failure and similar left ventricular systolic dysfunction have differing exercise capacity. The aim of this study was to identify echocardiographic predictors of exercise capacity in Algerian patients with heart failure and systolic dysfunction.

Methods: We included 150 patients with class II (70%) or III (30%) heart failure with left ventricular ejection fraction below 40%. Six-minute walking test and cardiac color Doppler-echo, including tissue Doppler of mitral and tricuspid rings, were performed. Moderate and severe mitral regurgitation were considered as significant. Two groups were divided according to the median walking distance (290m): Group 1 <290m and Group 2 >290m.

Results: Mitral regurgitation was detected in 112 patients (75%), which was significant in 40 (27%). Group 1 showed more significant mitral regurgitation (35 vs 18%), increased left atrium area (27±1 vs 24±1cm²), mitral E amplitude (88±65 vs 72±3cm/s) and systolic pulmonary pressure (37±1 vs 32±1 mmHg, all P<0.05). By logistic regression analysis, only the presence of significant mitral regurgitation was independently associated with less walked distance (odds ratio: 3.44 95% confidence interval 1.02-11.66, P<0.05). By multiple linear regression, the only independent predictor of walked distance was left atrium area (r=0.25, beta coefficient: -0.5±2, P<0.01).

Conclusions: In patients with class II-III heart failure and left ventricular systolic dysfunction, the main echocardiographic predictors of exercise capacity are related to the presence of significant mitral regurgitation.

0237

Acute myocarditis – a systematic review of cases over 3 years

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Background: Acute Myocarditis (AM) is an inflammatory disease of the myocardium with a great heterogeneity of clinical presentations.

Methods: Retrospective study including all patients (P) with a discharge diagnosis of AM between 2010 and 2013.

Results: 65 P had a diagnosis of AM (62 idiopathic, 2 acute viral and 1 drug-induced), they were more likely males (n=60) and the majority (n=44) were in the 2nd and 3rd decade of life. Cardiovascular risk factors were present in 58.5%, but only 12.3% had >1 risk factor. Chest pain was the most common clinical presentation (n=64). A prodrome of fever/constitutional symptoms occurred in 43.1%. About half of the P (n=34) had pericarditis and 26.2% had pericardial effusion. At admission, 31% had signs of heart failure. Admission electrocardiogram showed repolarization abnormalities in 75.4%, with persistent ST-T segment elevation being the most common (n=33). Pathological Q waves were present in 4.6%. At admission, 92.3% had increased inflammatory biomarkers. Virus serology was collected in 27.7%, and only in 2P the results were suggestive of acute infection. The echocardiogram showed left ventricular (LV) systolic dysfunction (LVSD) in 18.4% and LV dilatation in 3.1%. About half of the P (n=31) had segmental wall motion abnormalities, more frequently observed in the inferior wall (n=13). Cardiac magnetic resonance (CMR) showed LVSD in 10.5%. Comparing to previously echocardiographic assessment (mean 5.6±6.5 days), CMR showed deterioration of LV systolic function in 3 P and recovery in 8 P. Late gadolinium enhancement (LGE) was localized to subepicardial regions in 65.2%, to mesocardiac regions in 8.8% and in 21.1% was localized in both regions. LGE was most frequently found in the lateral wall (n=44). Regional edema was observed in 5.3%. Endomyocardial biopsy was not performed in any P. During hospitalization, there was no mortality.

Conclusion: AM appears as young adult disease frequently presenting with chest pain and often associated with pericarditis and viral prodrome. About one fifth of the P had LVSD, but in-hospital prognosis was relatively benign.