predicted the occurrence of acute decompensation. The combination of NYHA class 4 to a BNP level greater than 410pg/mL or at elevated filling pressures predicted the occurrence of decompensation in 100% of cases.

Discussion/Conclusion Despite the directives of learned societies, b blockers remain largely under prescribed in systolic heart failure. The combined use of BNP or echocardiographic indices to NYHA stage allows to accurately predict the occurrence of acute decompensation.

The author hereby declares no conflict of interest

0250

Prognostic value of body mass index and waist circumference in patients with chronic heart failure: Algerian experience

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Introduction and objectives To analyze the association between higher body mass index and waist circumference, and the prognostic values of both indicators in total and cardiac mortality in patients with chronic heart failure.

Methods The study included 1954 patients who were followed up for 4 years in military hospitals of Algeria. Obesity was classified as a body mass index >30 and overweight as a body mass index of 25.0-29.9. Central obesity was defined as waist circumference >88cm for women and >102cm for men. Independent predictors of total and cardiac mortality were assessed in a multivariate Cox model adjusted for confounding variables.

Results Obesity was present in 38% of patients, overweight in 46%, and central obesity in 63%. Body mass index and waist circumference were independent predictors of lower total mortality: hazard ratio =0.84 (P<.001) and hazard ratio=0.97 (P=.01), respectively, and lower cardiac death (body mass index, hazard ratio =0.84, P<.001; waist circumference, hazard ratio =0.97, P=.01). The interaction between body mass index and waist circumference (hazard ratio =1.001, P<.01) showed that the protective effect of body mass index was lost in patients with a waist circumference >120cm.

Conclusions Mortality was significantly lower in patients with a high body mass index and waist circumference. The results also showed that this protection was lost when these indicators over a certain limit.

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0265

Red blood cell distribution width adds prognostic value for outpatients with chronic heart failure: Algerian experience

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Introduction and objectives Red blood cell distribution width has emerged as a new prognostic biomarker in cardiovascular diseases. Its additional value in risk stratification of patients with chronic heart failure has not yet been established.

Methods A total of 594 consecutive outpatients (Military hospitals of Algiers and Constantine) with chronic heart failure were studied (median age 71 years [interquartile range, 62-77], 65% male, left ventricular ejection fraction 40 [14] %). On inclusion, the red cell distribution width was measured and clinical, biochemical, and echocardiographic variables were recorded. The median follow-up period was 2.3 years [interquartile range, 1.2-3.7].

Results A total of 187 patients died and 203 required hospitalization for decompensated heart failure. Kaplan-Meier analysis showed an increase in the probability of death and hospitalization for heart failure with red cell distribution width quartiles (log rank, P<.001). A ROC analysis identified a red cell distribution width of 15.4% as the optimal cut-off point for a significantly higher risk of death (P<.001; hazard ratio=2.63; 95% confidence interval, 2.01-3.45) and hospitalization for heart failure (P<.001; hazard ratio=2.37;

95% confidence interval, 1.80-3.13). This predictive value was independent of other covariates, and regardless of the presence or not of anaemia. Importantly, the addition of red cell distribution width to the clinical risk model for the prediction of death or hospitalization for heart failure at 1 year had a significant integrated discrimination improvement of 33% (P<.001) and a net reclassification improvement of 10.3% (P=.001).

Conclusions Red cell distribution width is an independent risk marker and adds prognostic information in outpatients with chronic heart failure. These findings suggest that this biological measurement should be included in the management of these patients.

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Six minute walk test: predictor of hospital readmission in patients with chronic heart failure

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Background Patients with chronic heart failure are frequently readmitted to the hospital due to disease progression. Although a shorter 6-minute walk distance (6MWD) is correlated with poor prognosis, 6MWD is not considered a clinical indicator for predicting hospital readmission. We investigated whether 6MWD predicted readmission due to heart failure in CHF patients.

Methods We enrolled 814 patients admitted to the therapeutic unit of chronic heart failure from 2006 to 2013 as follow: 6MWD <300 m (n=740), 300<6MWD<450 m (n=54) and 6MWD >450m (n=20). Clinical characteristics, 6MWD and readmission due to heart failure were evaluated.

Results The mean of age was 63 years old, 65% males. The mean 6MWD in groups were 131.4, 349 and 512m respectively. 6MWD was shorter in readmitted patients than non-readmitted patients and was a significant predictor of readmission (P<0.0001). 6MWD measured is a predictor of hospital readmission in CHF patients for clinical or echocardiographic cardiac decompensation (p=0.01).

Conclusions In systolic heart failure outpatients, 6MWD demonstrated utility as predictors for hospitalization for cardiac decompensation.

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The role of brain natriuretic peptide and cystatin C in the evaluation of left ventricular diastolic dysfunction: correlation with echocardiographic indexes after myocardial infarction

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Background The utility of Brain Natriuretic Peptide (BNP) and cystatin C for detecting left ventricular (LV) diastolic dysfunction after myocardial infarction (MI) in patients without heart failure symptoms still unclear. In this study, we investigated the relation between BNP, serum cystatin C levels and LV diastolic dysfunction after MI in patients without systolic dysfunction.

Methods We studied 127 patients without renal dysfunction after first acute coronary syndrome (ACS). LV diastolic function was assessed with conventional Doppler, by means of mitral inflow and with tissue Doppler echocardiography by means of mitral annulus. The ratio of early diastolic transmitral E wave velocities to tissue Doppler mitral annulus early diastolic E' wave velocities (E/E'), was used to detect LV filling pressures. Patients were divided in three groups according to E/E' ratios <10 (group I), E/E' ratios "between" 10 and 15 (group II) and E/E' ratios >15 (group III). Plasma concentrations of BNP and serum cystatin C were measured at admission.

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