Diagnostic performance of midregional proadrenomedullin in heart failure: comparison with brain natriuretic peptide levels and the echocardiographic estimation of left ventricular filling pressures

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**Background:** Acute decompensated heart failure is a challenging diagnosis when natriuretic peptides are misleading. Midregional-proadrenomedullin (MR-proADM) is a new prognostic peptide in heart failure.

**Objectives:** This preliminary study sought to assess the diagnostic accuracy of MR-proADM in heart failure in comparison with B-type natriuretic peptide (BNP) according to the echocardiographic estimation of left ventricular filling pressures (LVFP). The second purpose was to establish a cut-off value of MR-proADM between stable and decompensated heart failure.

**Methods:** We measured BNP and MR-proADM plasma levels in 35 consecutive patients. Concomitantly, we performed a doppler echocardiography, measuring the ratio of mitral velocity to early diastolic velocity of the mitral annulus (E/e’). 25 patients were suspected of congestive heart failure and 10 patients were suffering from stable heart failure.

**Results:** Ischemic and dilated cardiomyopathies were the two major causes of heart failure in our population (43% vs 31%), with only 17% of heart failure with preserved ejection fraction. Median MR-proADM and BNP levels were 0.94 nmol/L and 552 pg/mL, respectively. Both plasma levels were scaling up with the NYHA classification. The correlation between the E/e’ ratio and BNP levels was better than between E/e’ and MR-proADM levels (r=0.63 vs 0.41 respectively). A mild correlation was found between BNP and MR-proADM, probably due to their shared prognostic value. MR-proADM could classify most of the patients with intermediate BNP levels according to the echocardiographic estimation of LVFP.

**Conclusion:** This preliminary study shows that MR-proADM may be of interest for the diagnosis of decompensated heart failure in patients with intermediate BNP levels. MR-proADM levels > 0.74 nmol/L would correlate with the elevation of LVFP as determined by the E/e’ ratio, and thus be useful when echocardiography is not available.

Metaboreflex attenuation as a potential cause of improvement in the ventilatory response after cardiac resynchronization therapy

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**Background:** Patients suffering from heart failure (HF) have constant oedema. New York Heart Association (NYHA) class was 2 (40%), 3 (44%) and 4 (16%) among the 1688 adults hospitalized for HF in the French Military Hospital (Djibouti) between August 2008 and December 2010. Clinical and prognosis data were recorded.

**Objective:** We aimed to investi...