USEFULNESS OF PLASMA GALECTIN-3 IN CONGESTIVE HEART FAILURE: RELATIONSHIPS WITH ECHOCARDIOGRAPHIC PARAMETERS AND SURVIVAL

Poster Contributions
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Background: Galectin-3 (Gal-3), a mediator of cardiac fibrosis, is associated with adverse outcomes in heart failure (HF) but little is known on the mechanisms underlying this prognostic value. Our aim was to evaluate Gal-3 levels in HF and to analyze the relationship between Gal-3, LV function and long-term outcomes.

Methods: Gal-3 and BNP were measured in 216 fully treated HF pts. LV function was assessed by echocardiography. The risk adjusted survival was analyzed over a 7-yr follow-up.

Results: Median Gal-3 and BNP were respectively 17.6ng/mL (IQR 14.1-23.6) and 467pg/mL (IQR 194-1261). During follow-up, 133 pts died (worsening HF n=75, sudden death n=35, CV death n=3, other death n=20), 15 pts underwent heart transplant. Gal-3 was associated with age (r=0.32, p<0.001), NYHA class (r=0.35, p<0.001), eGFR (r=-0.65, p<0.001), BNP (r=0.38, p<0.001) and pulmonary artery pressure (PAP) (r=0.18, p=0.02). There was no relationship between Gal-3 and LVEF, LV volumes or mass. In multivariate analysis including age, LVEF, PAP and eGFR, Gal-3 is the strongest predictor of long term mortality (HR 2.43 (1.49-3.95), p=0.001) combined with higher BNP (>467pg/mL) was associated with higher all-cause mortality (HR 4.29 (2.77-6.68)), even in the adjusted model (HR 3.39 (2.14-5.37), p<0.001).

Conclusions: Prognostic value of Gal-3 on mortality appears independent of LV function. The lack of relationship with LV function could suggest an added diastolic dysfunction, consistent with Gal-3 pro-fibrotic properties.