BIG ENDOTHELIN-1 ELISA References / Citations in Cardiology
(Cat. No. BI-20082H)

Renal function, N-terminal Pro-B-Type natriuretic peptide, propeptide big-endothelin and patients with heart failure and preserved ejection fraction.

Study population: Patients with coronary artery disease (CAD, n=439)
Sample type: EDTA plasma
Conclusions: ".. NT-proBNP is a good indicator of suspected heart failure. While for NT-proBNP different cut-off points have to be considered in the diagnosis of HfPEF, a single cut-off point of Big-ET-1 was appropriate in the diagnosis of HfPEF, regardless of the presence or absence of CKD. An additional measurement of Big-ET-1 improves the diagnosis of HfPEF in patients with chronic kidney disease.”

Association of baseline big endothelin-1 level with long-term prognosis among cardiac resynchronization therapy recipients.

Study population: Patients with or without CRT (CAD, n=367)
Sample type: EDTA plasma
Conclusions: "Baseline big ET-1 > 0.56 pmol/L was independently associated with higher all-cause mortality and HfH among CRT recipients, and therefore can be added to the marker panel used for stratifying high risk CRT patients for priority treatment.”

Plasma level of big endothelin-1 predicts the prognosis in patients with hypertrophic cardiomyopathy.
Yilu Wang, Yida Tang, Yubao Zou, DongWang, Ling Zhu, Tao Tian, JizhengWang, Jingru Bao,Rutai Hui , Lianming Kang, Lei Song, Ji Wang, Int J Cardiol (2017) Sep 15;243:283-289. PMID: 28587741

Study population: Patients with HCM (n=245)
Sample type: plasma
Conclusions: "high level of plasma big endothelin-1 predicted prognosis for patients with HCM and it can be added to the marker panel in stratifying HCM patients for giving treatment priority to those at high risk.”

Associations of big endothelin-1 and C-reactive protein in atrial fibrillation.

Study population: Patients with atrial fibrillation (AF, n=128)
Sample type: Plasma
Conclusions: "Both plasma hs-CRP and big ET-1 levels are elevated in lone AF patients, and are associated with AF. In paroxysmal lone AF
patients, there were significant positive correlations between plasma hs-CRP level and big ET-1 level.”

**Plasma Big Endothelin-1 Level and the Severity of New-onset Stable Coronary Artery Disease.**
Chen J1, Chen MH, Guo YL, Zhu CG, Xu RX, Dong Q, Li JJ.

Study population: consecutive stable CAD patients (n=963)
Sample type: Plasma
Conclusions: “The present findings indicate that the plasma big ET-1 level is a useful predictor of the severity of new-onset stable CAD associated with significant stenosis.”

**Association of Big Endothelin-1 with Coronary Artery Calcification.**
Qing P, Li XL, Zhang Y, Li YL, Xu RX, Guo YL, Li S, Wu NQ, Li JJ.

Study population: patients with manifestation of chest pain and underwent cardiac CT (n=510)
Sample type: Plasma
Conclusions: plasma big ET-1 level was a valuable independent predictor of CAC in our study. The combination of big ET-1 and CAC is in good accordance with the Framingham risk score.”

**Val-HeFT investigators. The prognostic value of big endothelin-1 in more than 2,300 patients with heart failure enrolled in the Valsartan Heart Failure Trial (Val-HeFT).**

Study population: patients with stable, symptomatic heart failure (HF), who were on prescribed HF therapy (n= 2359)
Sample type: Plasma
Conclusions: “In a large population of patients with symptomatic heart failure, the circulating concentration of Big ET-1, a precursor of the paracrine and bioactive peptide ET-1, was an independent marker of mortality and morbidity. In this setting, BNP remained the strongest neurohormonal prognostic factor.”

**Plasma NT pro-BNP, hs-CRP and big-ET levels at admission as prognostic markers of survival in hospitalized patients with dilated cardiomyopathy: a single-center cohort study.**
Li X, Chen C, Gan F, Wang Y, Ding L, Hua W.
BMC Cardiovasc Disord. 2014 May 11;14:67. [PMCID: 24885051]

Study population: Patients with dilated cardiomyopathy (DCM, n=622)
Sample type: Plasma
Conclusions: “In a large population of patients with DCM, the circulating concentrations of NT pro-BNP and hs-CRP, but not big-ET, were independent markers of all-cause mortality.”
Correlations between clinical presentation, brain natriuretic peptide, big endothelin-1, tumor necrosis factor-alpha and cardiac troponins in heart failure patients.
Ital Heart J. 2005 Feb;6(2):125-32. PMID: 15819505

Study population: patients with heart failure (n=120)
Sample type: Plasma
Conclusions: “The plasma concentrations of BNP and BET-1 showed the best and comparable correlations with parameters describing the clinical status of patients with heart failure, in particular with the presence of pulmonary venous congestion. The value of the plasma concentration of TNF-alpha and those of cardiac troponins were found to be limited in patients with relatively stable heart failure.”

Superiority of big endothelin-1 and endothelin-1 over natriuretic peptides in predicting survival in severe congestive heart failure: a 7-year follow-up study.

Study population: patients with congestive heart failure (CHF, n=47)
Sample type: Plasma
Conclusions: “Big ET-1 and ET-1 are strong independent predictors of survival in patients with severe CHF and better for this purpose than natriuretic peptides or their pro-peptides. These markers allow easily to identify a population with a very high risk mortality eligible for more aggressive therapies.”

Direct enzyme immunometric measurement of plasma big endothelin-I concentrations and correlation with indicators of left ventricular function.

Study population: Patients undergoing cardiac catheterization (n=90)
Sample type: EDTA Plasma
Conclusions: “Plasma big endothelin-1 concentrations were notably greater in patients with New York Heart Association (NYHA) class II–IV symptoms than in patients without cardiac disease or in patients categorized to NYHA class I. These data suggest that plasma big endothelin-1 concentrations, measured by a direct ELISA, correlate with hemodynamic indicators and symptoms of left ventricular dysfunction.”