

PP-056

Relationship Between Myeloperoxidase and Myocardial Damage in Patients With Chronic Heart Failure

Ömer Gedikli¹, Abdulkadir Kiriş¹, Yusuf Hoşoğlu¹, Caner Karahan²
¹Karadeniz Technical University Medical School, Department of Cardiology, Trabzon, ²Karadeniz Technical University Medical School, Department of Biochemistry, Trabzon

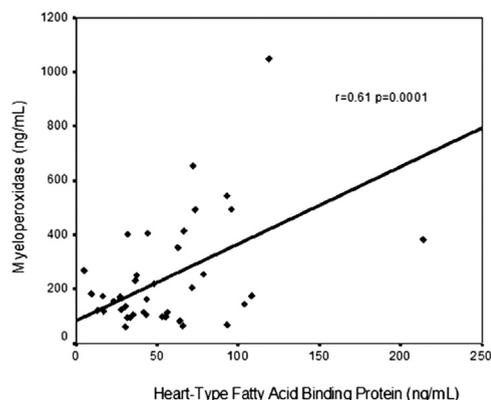
Myeloperoxidase (MPO) is a biomarker of inflammation and oxidative stress produced by neutrophils, monocytes, and endothelial cells. MPO levels increase in patients with heart failure. Increased MPO is associated with prognosis and left ventricular function in these patients. Heart-type fatty acid-binding protein (H-FABP) is a low molecular weight (15 kD) cytoplasmic protein, whose role is intracellular transportation of free fatty acid in the cardiomyocyte. H-FABP is widely used to evaluate ongoing myocardial damage.

Aim: The aim of the present study was to investigate the relationship between MPO and myocardial damage.

Methods: We studied 42 consecutive patients with chronic heart failure. Serum H-FABP and MPO levels were measured by ELISA kits. Routine biochemical and clinical parameters were recorded. Echocardiographic examinations were performed in all patients.

Results: Mean age of study group was 67 ± 12 years. MPO and H-FABP levels were measured as 255 ± 227 (ng/mL) and 60.6 ± 48.5 (ng/mL) respectively in the study group. Positive correlation was found between H-FABP and MPO ($r=0.61$, $p=0.0001$) (Figure 1). In multiple linear regression analysis, it was found that the age ($\beta=-0.36$, $p=0.006$), creatinine ($\beta=0.3$, $p=0.024$) and serum MPO level ($\beta=0.41$, $p=0.009$) were significant determinants of H-FABP levels.

Conclusion: We found that MPO is one of the independent determinants of serum H-FABP levels. Our results suggest that increased MPO levels may contribute to ongoing myocardial damage in patients with chronic HF.



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Diurnal Blood Pressure Pattern in Patients with Ischemic and Dilated Cardiomyopathy

Ercan Taştan¹, Hasan Murat Uğurlu¹, Mehmet Han Mercen¹, İlyas Kaya¹, Mehmet Zihni Bilik³, Mehmet Serdar Soydu²
¹Diyarbakır Education and Research Hospital, Diyarbakır, ²Hacettepe University Cardiology Department, Ankara, ³Dicle University Cardiology Department, Diyarbakır

Aim: Heart failure is a chronic progression characterized by neuroendocrine system maladaptation. This chronic progressive situation reflects an increase in sympathetic activity and peripheral vascular resistance and a decrease in baroreceptor sensitivity, and could be the cause of changes in the diurnal rhythm of blood pressure. However, some trials show that the circadian rhythm of blood pressure in patients with severe systolic heart failure does not differ from that of control groups. In contrast, trials generally show that nondipper and reverse dipper patients more frequently experience severe heart failure. No trials have examined the effects of heart failure etiology for this situation. Our purpose is to determine the circadian rhythm differences between ischemic and nonischemic cardiomyopathy patients.

Material-Method: Our study included 66 patients: 22 with ischemic cardiomyopathy, 22 with nonischemic cardiomyopathy, and 22 as a control group. The ejection fraction was under 40% with sinus rhythm, and the left heart was enlarged, with no biventricular pace implantation, no severe heart valve disease; no patient was receiving dialysis. All patients underwent hemograms and routine laboratory tests and their BMIs and GFRs were calculated. Echocardiographic tests were conducted on all patients and each patient took a 24 hour ambulatory blood pressure device and prepared for the study.

Results: The ischemic cardiomyopathy group (21M, 1F) had a statistically significant higher male patient ratio than the nonischemic cardiomyopathy group (14M, 8F) and the control group (13M, 9F). A statistically high statin use also occurred in the ischemic cardiomyopathy group compared to the nonischemic cardiomyopathy group. No significant differences existed between the ischemic and nonischemic cardiomyopathy patients for ejection fraction, age, DM, HT, glomerular filtration rate, body mass index, hemogram, and routine laboratory tests. In control group dippers, in nonischemic cardiomyopathy group nondippers, and in ischemic cardiomyopathy group, the number of reverse dippers was statistically high ($p<0.001$).

Conclusion: This study showed that the diurnal rhythm of blood pressure changes in severe systolic heart failure. In the nonischemic cardiomyopathy group, 54% of the patients were nondippers and 27.3% were reverse dippers. In the ischemic cardiomyopathy group, 63.6% of the patients were reverse dippers and 27.3% were nondippers. When we combined the findings of our study, the ischemic cardiomyopathy group had a higher future mortality and hospitalization than the nonischemic cardiomyopathy group because the number of reverse dippers was significantly higher in this group. This emphasizes the importance of ambulatory blood pressure monitoring and evaluation of the nondipper situation in the prognosis of congestive heart failure in these patients. Ambulatory blood pressure monitoring has an important role in determining the drug taking hours.

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Spirolactone Prevents the Heart Against Anthracycline Cardiotoxicity

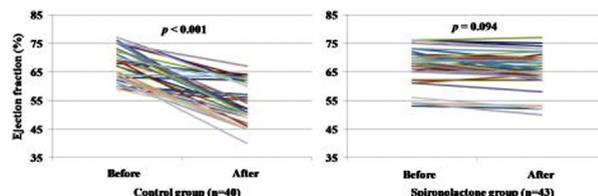
Mahmut Akpek¹, Ibrahim Ozdogru¹, Omer Sahin¹, Mevlude Inanc², Ali Dogan¹, Cevat Yazici³, Veli Berk², Halit Karaca², Nihat Kalay¹, Abdurrahman Oguzhan¹
¹Erciyes University School of Medicine Department of Cardiology, Kayseri, ²Erciyes University School of Medicine Department of Medical Oncology, Kayseri, ³Erciyes University School of Medicine Department of Biochemistry, Kayseri

Background: The most important adverse event of anthracyclines is cardiotoxicity and can limit the use of them. Spirolactone is an aldosterone antagonist and has antifibrotic and antioxidant effects. In the present study, we aimed to investigate the effects of spironolactone in the prevention of the cardiotoxic effects of the anthracycline.

Materials-Methods: A total of 83 female patients who diagnosed with breast cancer and planned anthracycline including chemotherapy regimen were enrolled in to the study. Study population were randomized as spironolactone and control group. Twenty five mg/day spironolactone was administered to the patients in spironolactone group.

Results: LVEF decreased from 67.0 ± 6.1 to 65.7 ± 7.4 ($p=0.094$) in the spironolactone group, while from 67.7 ± 6.3 to 53.6 ± 6.8 in control group ($p<0.001$). Diastolic functional class was prevented in spironolactone group ($p=0.247$). In the control group, however, diastolic functional class was deteriorated ($p<0.001$). Mitral inflow E wave/lateral wall e' wave ratio which is one of the most important sign of the diastolic functions was significantly increased in the control group while prevented in the spironolactone group.

Conclusions: Prophylactic administration of spironolactone 25 mg/day prevents the left ventricular systolic and diastolic functions in patients who administrated anthracyclines.



PP-059

Tenascin-C as Predictor of Left Ventricular Remodeling and Mortality in Patients with Dilated Cardiomyopathy

Bahadır Şarlı¹, Topsakal Ramazan¹, Esmâ G Kaya², Mahmut Akpek¹, Yat Yin Lam³, Mehmet G Kaya¹
¹Department of Cardiology, Erciyes University School of Medicine, Kayseri, ²Department of Microbiology, Erciyes University School of Medicine, Kayseri, ³Division of Cardiology, Prince of Wales Hospital, The Chinese University of Hong Kong

Background: Several cardiac biomarkers including brain natriuretic peptide (BNP) and NT-pro BNP have been used as predictors of prognosis and negative remodeling in DCM. In the present study, we aimed to evaluate the prognostic value of Tenascin-C (TN-C) in dilated cardiomyopathy (DCM). We also aimed to investigate whether TN-C level can be used to determine reverse remodeling in patient with DCM.