importance of the serum LOX-1 levels in the diagnosis and assessment of left ventricular systolic heart failure and its relationship with serum pro-BNP.

Methods: Fifty-five patients with a diagnosis of systolic heart failure and 25 patients without systolic heart failure were enrolled in this study. The study took place in the department of cardiology at Uludag University School of Medicine between October 2011 and April 2012. Echocardiography was performed in all cases. Serum C-reactive protein, pro-BNP and LOX-1 levels were studied.

Results: Serum LOX-1 and pro-BNP levels were significantly higher in the heart failure group and showed negative correlations with left ventricular ejection fraction. However, there was no significant correlation between serum LOX-1 and pro-BNP levels. In addition, LOX-1 level in patients with ischemic cardiomyopathy was significantly higher than the patients with dilated cardiomyopathy. ROC analysis was done for the studied sample of serum LOX-1, the 'cut off' level was determined as 1.31 ng/ml for LOX-1 giving a sensitivity of 56.3% and specificity of 96% for the diagnosis of the systolic heart failure.

Conclusion: Our study demonstrates the utility of the serum LOX-1 levels in the diagnosis of left ventricular systolic heart failure. LOX-1 may have an important place in the diagnosis of heart failure, especially when the etiology is ischemic cardiomyopathy. Further prospective studies with larger sample sizes are needed to better understand the exact role of LOX-1 in the diagnosis and assessment of heart failure.

Table 1. The demographic and baseline clinical characteristics of the heart failure and control groups

	Heart failure group	Control group	p value
Age (years)	64 (22-83)	62 (50-78)	0.306
Hypertension (n, %)	30 (54.5%)	14 (56%)	1.000
Hyperlipidemia (n, %)	21 (38.2%)	14 (56%)	0.323
Smoking (n, %)	9 (16.4%)	2 (8%)	0.511
Left ventricular ejection fraction	27 (18-44)	65 (54-73)	<0.001

Table 2. Laboratory data of the heart failure and control groups

	Heart failure	Control group	value
Blood glucose (mg/dl)	91.4±17.2	90.9±12	0.882
Urea (mg/dl)	45 (21-99)	32 (19-44)	<0.001
Creatinine (mg/dl)	0.9 (0.6-1.4)	0.7 (0.6-1.1)	<0.001
GFR (ml/min/1.73 m2)	84 (44-148)	96 (65-144)	0.012
Sodium (mg/dl)	137 (125-144)	141(138-144)	<0.001
Potassium (mg/dl)	4.3±0.51	4.4 ±0.44	0.602
Calcium (mg/dl)	9.0 (6.3-10.5)	9.5 (8.6-11.2)	0.001
Hemoglobin (g/dl)	12.7±1.97	14.3 ±0.86	<0.001
LOX-1 (ng/ml)	1.46 (0.56-4.09)	0.99 (0.58-1.7)	<0.001
Pro-BNP (μg/ml)	3560 (211-20806)	97 (18-184)	<0.001
CRP (mg/L)	0.8 (0.3-5.5)	0.33 (0-0.5)	<0.001

GFR: Glomerular filtration rate, CRP: C-reactive protein, LOX-1: Lectin like oxidized LDL receptor-1, BNP: Brain natriuretic peptide

Table 3. Comparison of patients according to the etiology of heart failure

	DCMP (n=24)	ICMP (n= 31)	p value
Ejection fraction (%)	25 (18-44)	30 (19-44)	0.165
LOX-1 (ng/ml)	1.16 (0.56-2.84)	1.65 (0.64-4.09)	0.027
Pro-BNP (μg/ml)	2806 (211-17277)	5200 (248-20806)	0.044
CRP (mg/L)	0.52 (0.3-3.5)	1.3 (0.3-5.54)	0.058

CRP: C-reactive protein, LOX-1: Lectin like oxidized LDL receptor-1, BNP: Brain natriuretic peptide, DCMP: dilated cardiomyopathy, ICMP: ischemic cardiomyopathy

OP-167

Utility of the Neutrophil to Lymphocyte Ratio in Predicting In-hospital Mortality in Patients That Received Levosimendan Treatment for Acute Decompensated Heart Failure

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Aim: The aim of the study was to investigate the effect of levosimendan infusion on hematological variables in patients with acute heart failure. Also, predictive value of these variables over in hospital mortality evaluated.

Methods: Two hundred and nineteen patients (168 male, 51 female, mean age 63.2±12.7 years) with acute exerbation of advanced heart failure (ejection fraction ≤35%) were included in this study. Levosimendan was initiated as a bolus of 6 μg/kg followed by a continuous infusion of 0,1 μg/kg/min for 24 hours. Changes of hematological variables between admission and on third day after levosimendan infusion were evaluated. Categorical variables were expressed as frequencies and percentages. Continuous variables were compared using analysis of variance and Kruskal-Wallis tests for those with normal and skewed distributions, respectively. Chi-square tests were used to compare categorical variables. Univariate and multivariate Cox regression models were used to evaluate the independent association of different hematological variables with in-hospital mortality.

Results: Table 1 demonstrated the baseline demographical and laboratory characteristics of the patients. After levosimendan therapy, significant decrease in WBC and neutrophil counts and increase in lymphocyte count. As a result, neutrophil to lymphocyte ratio (NLR) decreased. Compared to patients that survived, in patients who died during in-hospital stay, these hematological changes not occurred (Table 2). Δ NLR detected as independent predictor of in hospital mortality when other hematological variables associated with mortality analysed in the multivariate logistic regression analysis ($R2=0.094$, $p=0.003$).

Conclusion: Our study showed that levosimendan treatment is associated with significant changes in hematological variables in patients with acute exacerbation of advanced heart failure. The difference between baseline and post-treatment NLR is independent predictor of in hospital mortality.

Table 1

Age (years)	63.2 ± 12.7
Male gender	168
EF (%)	26.5 ± 6.4
Hypertension (%)	62.3
Diabetes mellitus (%)	28.9
Smoking (%)	17.3
Ischemic cardiomyopathy (%)	82.7
WBC (X1,000/μl)	12.6 ± 4.9
Neutrophil (%)	79.3 ± 13.5
Lymphocyte (%)	17.1 ± 7.2
Neutrophil-to-lymphocyte ratio	6.5 ± 4.7

Baseline characteristics and hematological variables

Table 2

Variables	Group 1	Group 2	p
Δ WBC	0.5 ± 2.2	1.1 ± 5.1	0.216
Δ Neutrophil	3.3 ± 7.8	- 1.1 ± 7.7	0.001
Δ Lymphocyte	-1.4 ± 6.1	1.1 ± 5.4	0.012
Δ NLR	1.1 ± 3.7	-2.7 ± 11.6	<0.001

Comparison of changes in hematological variables of the patients who survived (group 1) and died (group 2)after levosimendan therapy

OP-168

Post-discharge Heart Failure Monitorization Program in Turkey: Hit-PoinT

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Introduction: Disease management programs for the treatment of patients with heart failure (HF) have been advocated by society guidelines in order to improve patient compliance and decrease hospitalizations. However, there are several different HF management programs; most of them are costly and are not feasible to use in various geographic areas. The aim of this study was to assess the efficacy and feasibility of a cardiologist lead enhanced HF education at the time of hospital discharge with a 6 month phone follow- up program in chronic HF patients.

Methods: The Hit Point trial was a multicenter; randomized, controlled trial of enhanced HF education with a 6 month phone follow-up program (EHFP) vs routine care (RC) in patients who carried the diagnosis of HF secondary to systolic dysfunction, had been hospitalized for HF within six months of randomization, and had symptoms despite optimal medical therapy. Education included information on the adherence to treatment, symptoms recognition, diet and fluid intake, weight monitoring, activity, exercise training and when to contact cardiologist. Patients were