failure clinical severity, and echocardiographic evaluation of the relationship between the severity of diastolic dysfunction, and get plasma NT-proBNP in the diagnosis of diastolic heart failure most good community values.

**METHODS**

The study is outpatient or inpatient treatment of non-systolic heart failure in patients with hypertension 61 cases were divided into three groups: no clinical signs and symptoms of heart failure, cardiac function NYHA classification I; clinical None signs and symptoms of heart failure, echocardiographic diastolic dysfunction group II; clinical signs and symptoms of heart failure, echocardiographic diastolic dysfunction group III. In 20 heart failure control group. All patients enrolled in clinical data are divided into four weight: I level (normal diastolic function), grade II (impaired relaxation), III grade (pseudo- normalization filling), grade IV (restrictive filling). Admission or treatment plasma NT-proBNP concentrations within 24 hours. Comparison between different experimental tumor necrosis factor alpha (TNF-α) levels, the former showed a faster recovery from 6 to 48 hour. For resveratrol prevention study, we found that tumor necrosis factor alpha (TNF-α) levels, in plasma and heart tissue were significantly increased at 6 h after LPS injection in groups 2, 4, and 5, compared to the groups 1 and 3. Among the groups 2, 4 and 5 there was no significant difference.

**RESULTS**

The area under the ROC curve of plasma NT-proBNP diagnosis of diastolic heart failure (AUC) was 0.886 (95% CI 0.818-0.954, P = 0.000). Plasma NT-proBNP when 112.45pg/ml, diastolic heart failure diagnostic sensitivity 94.0%, specificity 81.8%, positive predictive value of 72.7%, negative predictive value of 94.6%.

**CONCLUSIONS**

The plasma NT-proBNP for diagnosis of diastolic heart failure is valuable.

**GW26-e3591**

**Predicting Value of Biomarkers for Short-Term Outcomes in Acute Heart Failure**

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**OBJECTIVES**

B-type natriuretic peptide (BNP) and N-terminal pro-B-type natriuretic peptide (NT-proBNP) are increasingly being used to guide the management of acute heart failure (AHF) patients. This study aims to explore some new biomarkers providing predicting values for short term prognosis in patients with AHF.

**METHODS**

A total of 206 patients with AHF were enrolled and followed for 3 months. Baseline level of complete blood count, complete biochemistry, D-dimer and NT-proBNP were measured at admission or the following morning. Primary endpoints of the study were cardiovascular (CV) events, defined as cardiac death and/or readmission for AHF.

**RESULTS**

During the 90-day follow-up period, 15 patients died and 10 patients were re-hospitalized due to worsening of heart failure (12.14%). Red cell distribution width (RDW), D-dimer and NT-proBNP were significantly higher in the patients who had a CV events at the 90-day (p < 0.001). The area under receiver operating characteristic (ROC) curve (AUC) of NT-proBNP, D-dimer and RDW for predicting CV events by 90- day was 0.806, 0.887 and 0.754. Kaplan-Meier survival curve for 90-day CV events showed that patients with a D-dimer level > 1.1mg/dL and NT-proBNP > 2262.09pg/mL were at high risk (p < 0.001) for short-term outcomes of AHF.

**CONCLUSIONS**

D-dimer could be as a new biomarker combined with NT-proBNP for predicting early prognostic value to cardiovascular events of AHF.

**GW26-e4381**

**Resveratrol protects the heart from sepsis without systemically anti-inflammatory effect**

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**OBJECTIVES**

Resveratrol can protect the heart from sepsis, but the detailed mechanism remains unknown; therefore, we try to explore the mechanism.

**METHODS**

FVB and C57BL/6J male mice (age- 8 weeks; body weight- 20-25g) were subjected to lipopolysaccharide (LPS) injection at 6 mg/kg to set up a sepsis model. One study included 5 groups: Group 1 (control mice); Group 2 (intraperitoneal injection with LPS); Group 3 (treated with resveratrol only for 3 days); Group 4 (treated with resveratrol for 3 days before LPS); Group 5 (treated with LPS and resveratrol at same time). These mice were sacri- ficed at 48 h after LPS treatment. The dose of resveratrol was 20 mg/kg/d. Serial echocardiograms were performed to assess cardiac function.

**RESULTS**

In both strains of mice, LPS injection could significantly decrease the left ventricular EF% from 6 to 48 hour. For resveratrol prevention study, we found that tumor necrosis factor alpha (TNF-α) levels, in plasma and heart tissue were significantly increased at 6 h after LPS injection in groups 2, 4, and 5, compared to the groups 1 and 3. Among the groups 2, 4 and 5 there was no significant difference.

**CONCLUSIONS**

Resveratrol protection of the heart from sepsis is not due to its prevention of LPS-induced inflammation. Since resveratrol is a multiple bioactive natural compound, we should focus other mechanisms to explore how resveratrol protect heart from sepsis in the future studies.

**GW26-e5471**

**The Correlation between Cardiac function in patients with different classification levels of serum NT-proBNP and cardiac function**

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**OBJECTIVES**

To observe correlation between the standard of N-terminal pro-B-type natriuretic peptide (NT-proBNP) and cardiac function in different NYHA classification, LVEF and LVED.

**METHODS**

For the 83 patients of heart failure in hospital, to assay their NT-proBNP of blood serum by enzyme-linked immunosorbent assay (ELISA) and determine their LVEF and LVED. To analyse the correlation of patients’ NT-proBNP, the different cardiac functional grading and the indexes above-mentioned.

**RESULTS**

(i) Different NYHA cardiac function classification levels of serum NT-proBNP levels was significantly. Its level is positively correlated with cardiac function. (ii) NT-proBNP is negatively correlated with LVEF and positively correlated with the LVED.

**CONCLUSIONS**

NT-proBNP measurement is one of the methods of effective assistance in clinical diagnosis of heart failure, on the whole reflect the severity of heart failure.

**GW26-e0191**

**Altitude difference of HMGB1, Fetuin-A in the patients with congestive heart failure and effects on ventricular remodeling**

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**OBJECTIVES**

Inflammation and dystrophic calcification have been associated with cardiovascular disease (CVD) and chronic heart failure (CHF), changes in pathophysiological functions are reported during sea level altitude; however, Few study have explored altitude difference (2260m, 3300m) of change levels of serum high mobility group box 1 protein (HMGB1), Fetuin-A in patients with congestive heart failure and effects on ventricular remodeling. The aim of the present study was to evaluate the effect the altitude difference explore on HMGB1, Fetuin-A, and to study the relationship between changes of HMGB1, Fetuin-A and left ventricular mass index (LVMI), mean wall stress (MWS) and cardiac function.

**METHODS**

A total of 129 consecutive patients with CHF with matched age and sex were enrolled, and CHF patients were divided into high altitude group (3300m) (n = 62) and moderate altitude group (2260m)