**Results** The level of MPO in CHD group was significantly higher than that in the control group, and the level of PON level was significantly lower than that in the control group. In ACS group, MPO level was also significantly higher than that in SAP group, and the PON level was significantly lower than that in the SAP group. When the CHD is more severe, the MPO level will be more higher and the level of PON will be more lower. With coronary artery disease type and the severity of coronary artery disease, MPO levels increased gradually, while the PON level decreased gradually, stepwise regression analysis showed that MPO, PON, HDL, LDL concentrations were related significantly with the Gensini score of coronary lesions.

**Conclusion** MPO, PON1 would be better indicators to reflect the local inflammation of atherosclerotic plaque, LDL can affect the conversion of ox-LDL by MPO, PON1. So that, it can be the key mechanism of atherosclerotic plaque’s stability. Through detection of serum pro-inflammatory factor (MPO), and anti-inflammatory factor (PON1) levels in CHD patients and investigate their relationship with CHD and coronary artery disease, further analysis of the imbalance of pro-inflammatory cytokines and anti-inflammatory factor may be particularly important in the pathological significance in coronary heart disease, especially in acute coronary syndrome, and provide a new basis for the diagnosis and prediction of coronary heart disease and coronary artery disease.

**ASSOCIATIONS BETWEEN PLASMA N-TERMINAL PRO BRAIN NATRIURETIC PEPTIDE AND OXIDATIVE STRESS IN PATIENTS WITH CHRONIC STABLE CORONARY ARTERY DISEASE**

**Objectives** The present study was aimed to explore whether plasma N-terminal pro brain natriuretic peptide was associated with oxidative stress in patients with chronic stable coronary artery disease.

**Methods** Plasma levels of N-terminal pro brain natriuretic peptide, hemeoxygenase-1 and oxidative low-density lipoprotein were determined by electrochemiluminescence and ELISA respectively in 156 patients with ACS and one hundred forty-two patients without coronary artery disease (CAD) from Shanghai Xuhui District (aged <30 years) were enrolled from February 2007 to March 2008 and followed for a median of 6 months (4–10 months). Plasma Lp-PLA2 activity was measured at baseline with liquid chromatography tandem mass spectrometry. Its clinical significance was evaluated with existing risk indicators.

**Results** Lp-PLA2 activity was higher in patients with ACS than that in patients without CAD (22.36 ± 1.23 mg/ml vs 19.74 ± 3.85 mg/ml; p = 0.027). During the follow-up period, 5 cases of cardiovascular death, 8 cases of non-fatal myocardial infarction, and 11 cases of target vessel revascularization occurred. Elevated Lp-PLA2 was associated with an increased risk of MCVE (HR, 1.52; 95% CI, 1.09 to 2.37; p = 0.038). The Lp-PLA2 activity level in incidental cases was higher than that in non-incidental cases (p = 0.04).

**Conclusion** In this community-based cohort of patients with ACS, Lp-PLA2 was strongly and independently associated with major cardiovascular events and contributed incrementally to risk discrimination.

**RELATIONSHIP BETWEEN BRAIN NATRIURETIC PEPTIDE LEVELS IN PATIENTS WITH ACUTE CORONARY SYNDROME AFTER PERCUTANEOUS CORONARY INTERVENTION AND CARDIOVASCULAR EVENTS**

**Objective** To analyse the relationship between in patients with acute coronary syndrome (ACS) at 48 h after percutaneous coronary intervention (PCI) and the relationship between the variation of brain natriuretic peptide (BNP) and the short and long-term cardiovascular events.

**Methods** 156 patients with ACS were given conventional preoperative and postoperative medication and standardised PCI. Plasma levels of BNP were measured at 48 h after operations. All patients were divided into two groups according to the level of BNP. A group