patients with type 2 diabetes on the 1st and 14th days, which indicates the predominance of the affective immunity in this group of patients. Unlike patients without type 2 diabetes, the number of "nonclassical" monocytes in patients with type 2 diabetes is higher, indicating a more pronounced inflammatory response. A significantly higher level of circulating endothelial cells in patients with type 2 diabetes is a sign of more severe endothelial dysfunction compared to patients without diabetes.

GW28-e0465
NEUTROPHIL-TO-LYMPHOCYTE RATIO AND MONOCYTE COUNT IN PATIENTS WITH CARDIOGENIC SHOCK, DEPENDING ON THE SEVERITY OF CORONARY ARTERY LESIONS

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OBJECTIVES We aimed to assess relationship between neutrophil-to-lymphocyte ratio (NLR), monocyte count and the severity of coronary lesions in patients with myocardial infarction (MI), complicated by cardiogenic shock.

METHODS 61 patients (27 (44%) men and 34 (56%) women) with MI complicated by cardiogenic shock were recruited. All patients underwent coronary angiography. The severity of coronary artery lesions was evaluated by Syntax Score I. Patients were divided into two groups depending on the outcome: group 1 - died (31 patients, 51%); group 2 - survivors (30 patients; 49%). NLR was calculated as the ratio of the mean neutrophil count to mean lymphocyte count. Statistical analyzes were performed with Statistica 10.0.

RESULTS Mean age of patients was 72.5 ± 2.1 years. No age differences were found between the groups. There were significantly more females in 1 group (70% vs 40% in group 2, p = 0.03). Patients with ST-segment elevation myocardial infarction were met equally often (82% in group 1 and 77% in group 2, p = 0.84). In group 1 patients more frequently had myocardial infarction in the past (39% vs 8.3%, p = 0.025) and type 2 diabetes mellitus (35% vs 16%, p = 0.09). In patients with Syntax Score> 32 from the 1 group admission mean white blood cell count was 14700 ± 7800/μl, neutrophil count was 11750 ± 4800/μl. On 3-4 day leukocytosis increased up to 20720± 8800/ μl, neutrophil count to 18330 ± 8870/ μl, NLR reached 21.96 ± 17.33, that was significantly higher in comparison to the survivors with Syntax Score>32 (p<0.05). Higher monocytosis was associated with more severe coronary artery lesions. Patients with Syntax Score 23-32 from the 1 group had higher leukocytosis compared with such patients in group 2 (21170 ± 640/μl vs 15290 ± 1860/μl, p <0.01) due to neutrophilia (18280 ± 60/μl vs 11400 ± 180/μl, p <0.01). Patients with Syntax Score <23 in the 1 group had admission white blood cell count 15540 ± 4930/μl, in the 2 group - 11430 ± 4990/μl (p <0.05). On 3-4 day in patients with low Syntax Score from group 1 leucocytosis increased up to 17600 ± 8800/μl, neutrophil count reached 15320 ± 8870/μl, that was more significant than in those from the 2 group.

CONCLUSIONS Among patients with MI complicated by cardiogenic shock females and patients with MI in the past had poor outcome more frequently. High neutrophil count and NLR in patients with cardiogenic shock is likely to be caused by more severe systemic inflammatory response and associated with poor prognosis in patients with MI and cardiogenic shock.

GW28-e0660
Elevated Hs-CRP Level is Independently Associated with the Presence of Non-calcified or Mixed Coronary Atherosclerotic Plaques in Chinese Population Undergoing Coronary Computed Tomography Angiography

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OBJECTIVES High-sensitivity C-reactive protein (hs-CRP) has been demonstrated to be a useful marker of the presence and extent of coronary atherosclerosis. Patients with mix plaque (MP) or non-calcified plaque (NCP) have a higher risk of poor outcomes. However, the relationship between hs-CRP and presence of NCP or MP (NCP & MP) in Chinese population remain unclear. We investigated the role of hs-CRP in predicting the presence of NCP & MP in Chinese population undergoing coronary computed tomography angiography (CCTA).

METHODS A total of 868 subjects were recruited and the clinical and laboratory data were collected. Coronary plaques were classified as calcified, non-calcified and mixed. According to whether the subjects had coronary atherosclerotic plaques and the characteristic of the most stenotic plaque, subjects were divided into no plaque (NP), calcified plaque (CP) and NCP & MP. There were 219 subjects who had no NP, 331 patients with CP, 207 patients with NCP and 111 patients with MP. NCP & MP were more prone to occur poor outcomes, therefore, patients with NCP & MP were merged for analysis.

RESULTS Patients with NCP & MP had significantly higher hs-CRP level than those with NP or CP (1.99 [1.01-3.83] vs. 1.56 [0.84-2.81] or 1.56 [0.86-3.23] mg/L, p < 0.05). The subjects were divided into 2 groups according to the median hs-CRP level: high hs-CRP group and the low hs-CRP group. The percentage of patients with NCP & MP in the high hs-CRP group was significantly higher than those in the low hs-CRP group (42.5% vs. 30.9%, p < 0.05). Spearman correlation analysis showed that hs-CRP was positively correlated with triglyceride (r = 0.092, p < 0.05), while negatively correlated with high-density lipoprotein-cholesterol (r = -0.195, p < 0.001). Multiple logistic regression analysis showed that hs-CRP level was an independent risk factor for the presence of NCP & MP (OR: 1.05; 95% CI: 1.01-1.09; p = 0.022).

CONCLUSIONS Higher hs-CRP level is independently linked with the presence of NCP & MP in Chinese population.

GW28-e0804
Abstract Withdrawn

GW28-e0855
The effect of bisdemethoxycurcumin on myocardial apoptosis induced by staurosporine

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OBJECTIVES To investigate the effects of Bisdemethoxycurcumin (BDMC) on apoptosis of primary neonatal cardiomyocyte induced by staurosporine (STS).

METHODS The whole experiment was divided into control group, STS treatment group, BDMC pretreatment with STS treatment group and BDMC pretreatment group in the cultured neonatal mouse cardiomyocytes. Then, the cell viability, the cell apoptosis, the caspase-3 activity and the intracellular ROS level were measured by the CCK-8 assay kit, TUNEL assay kit, the caspase-3 activity assay kit and the reactive oxygen species assay kit respectively.

RESULTS (1) Compared with STS group, 100μmol/L BDMC pretreatment potently increases the viability of cardiomyocytes(from 50% to 78%, P<0.01, n=10). (2) Compared with STS group, BDMC pretreatment can lower the caspase-3 activity (from 700 to 500, P<0.01, n=10) as well as the rate of apoptosis significantly (from 28% to 10%, P<0.01, n=5). (3) Compared with STS group, BDMC pretreatment can reduce the ROS level obviously (from 7.7 to 1.7, P<0.01, n=8).

CONCLUSIONS Bisdemethoxycurcumin can inhibit apoptosis to exert cardiomyocyte protection through lowering the intracellular ROS level in staurosporine treatment.

GW28-e1127
S100A12 as an Early Biomarker for ST Elevation Myocardial Infarction

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OBJECTIVES The diagnostic sensitivity of myocardial necrosis markers, such as creatine kinase-MB (CK-MB), cardiac troponins, myoglobin for the earliest stage of ST-elevation myocardial infarction (STEMI), remains insufficient. We compared a new biomarker of plaque vulnerability (receptor for advanced glycation end-products, S100A12) with other biomarker at the earliest stage of STEMI.

METHODS The study population comprised 250 subjects [150 STEMI, 50 non-STEMI (NSTEMI), 50 unstable angina pectoris (UAP) and 50 control]. S100A12, myoglobin, troponin T and CK-MB were determined on arrival, after 4h, 6h, 12h, 24h, 3d, 7d and 1 month. Receiver operating cures (ROC) for S100A12, myoglobin, troponin T and CK-MB were constructed at 2h, 4h and 6h after onset. Based on