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Objective To investigate the effect of aspirin and cilostazol on interleukin-6 (IL-6) and high sensitive C reactive protein (hsCRP) and platelet-activating factor acetylhydrolase (PAF-AH) in acute coronary syndrome (ACS) patients and the difference between them.

Methods 72 patients with ACS were randomly divided into two groups: the aspirin group (n=34) and cilostazol group (n=38). All patients were given routine therapy including rest, oxygen inhaling, anticoagulating, reducing blood lipid levels, controlling the blood pressure. The patients in the aspirin group were given aspirin 0.1 g every day in addition. The patients in the cilostazol group were given cilostazol 0.1 g twice a day underlying the routine therapy. The course of treatment was 4 weeks. Observe the IL-6 and hsCRP and PAF-AH in serum and on peripheral blood mononuclear cells of the patients before and after treatment.

Result The basic characteristics of the two groups were identical ($p>0.05$). The content of IL-6 and hsCRP were all significantly decreased after therapy ($p<0.05$), and the content of PAF-AH were significantly increased after therapy ($p<0.05$). The content of IL-6 (25.9±7.5 vs 20.3±9.8 pg/ml) and hsCRP (9.5±2.1 vs 6.1±1.9 g/l) in aspirin group (after treatment) were significantly higher than those in cilostazol group (after treatment)($p<0.05$), and PAF-AH (27.2±5.6 vs 36.8±2.6 $\mu mol \cdot min^{-1} l^{-1}$) in aspirin group (after treatment) were significantly lower than those in cilostazol group (after treatment) ($p<0.05$).

Conclution Aspirin and cilostazol can decrease IL-6 and hsCRP level and increase PAF-AH level in ACS patients. And cilostazol is more effective than aspirin to inhibit the inflammatory response in ACS patients.

e0443 A NEW 30-DAY MORTALITY RISK SCORE SYSTEM FOR PATIENTS HOSPITALISED WITH ACUTE MYOCARDIAL INFARCTION

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Objectives To derive and validate a simple scoring system that predicts risk of 30-day mortality in patients hospitalised with acute myocardial infarction (AMI).

Methods We included 5, 524 patients with AMI who hospitalised from January 1, 1993, through December 31, 2009, at Chinese PLA General Hospital in Beijing. Age, sex, comorbidity, in-hospital mortality and complications were examined for patients primarily admitted for AMI.

Results The 30-day in-hospital mortality was 9.2% in patients. Cox regression multivariate analysis showed that a history of stroke and the complications such as cardiac shock, heart failure, ventricular tachycardia/fibrillation, pneumonia, gastrointestinal bleeding, multiple organ dysfunction syndromes, being female and being older than 50 were the only independent predictors of in-hospital mortality. Using the regression coefficient as a benchmark, we calculated a convenient score. In the validation dataset, the 1,677 patients with the lowest scores had a mortality rate of 1.5% and the 1,454 patients with the highest scores had a mortality rate of 24.2%.

Conclusions The study illustrates that a history of stroke, the complications, gender and age (older than 50) have proved to be a major prognostic marker for immediate poor outcome in the patients with AMI. The score may help to identify patients who are more likely to have a risk of in-hospital mortality within 30-days.

e0444 THE VALUE OF TISSUE DOPPLER-DERIVED E/E' IN PREDICTING HEART FAILURE IN PATIENTS ADMITTED FOR UNSTABLE ANGINA AND NON ST ELEVATION MYOCARDIAL INFARCTION

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Background In patients with acute myocardial infarction (AMI), diastolic function provides important prognostic information that is incremental to systolic function. Unlike other Doppler parameters of diastolic function, early mitral annulus velocity, e′ appears to be relatively independent of preload. In addition, the ratio of early transmitral flow velocity, E to e′, E/e′ has been shown to be the most accurate predictor of left ventricle (LV) filling pressure.

Objectives The aim of this study was to determine the prognostic significance of E/e' ratio obtained by tissue Doppler imaging (TDI) among patients admitted for unstable angina (UA) and non ST elevation myocardial infarction (NSTEMI) in relation to the development of congestive heart failure (CHF).

Methods 53 patients admitted with a diagnosis of NSTEMI or UA had transthoracic echocardiogram done within 72 h from admission. The patients were followed up during hospital stay. The end-point was ocurrence of CHF.

Results The computed cut off value for E/e′ ratio that would predict the development of CHF during hospital admission was 11.4. Twenty three (46%) patients had an E/e' ratio > 11.4. During hospital stay of a mean of 12.04±9.92 days, 18 patients (34%) had congestive heart failure. In a stepwise multivariable model, the most powerful independent prognostic indicator for the development of CHF was an E/e′ ratio > 11.4 (OR 5.45, 95% CI 1.07 to 53.00, p=0.050). The other independent predictors were history of smoking and diabetes mellitus (OR 2.69, 95% CI 1.80 to 40.36, p=0.017), use of statins (OR 0.01, 95% CI 0.00 to 0.37, p=0.015), PV_S (OR 0.89, 95% CI 0.80 to 0.99, p=0.026) and PV_D (OR 1.21, 95% CI 1.04 to 1.41, p=0.013).

Conclusion An E/e′>11.4 is a good predictor of the ocurrence of heart failure in patients with NSTEMI or UA.

e0445 ADMISSION HYPOGLYCAEMIA AND HYPERGLYCAEMIA ARE ASSOCIATED WITH INCREASED MORTALITY IN OLDER PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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Objective The aim was to assess the association between fasting plasma glucose (FPG) levels on admission and mortality in older patients with acute myocardial infarction (AMI), and compare the effects of FPG levels on outcomes in the context of contemporary treatments, including medical therapy, percutaneous coronary intervention and coronary artery bypass grafting.

Methods From April 2004 to October 2006, 1854 older (age ≥65 years) AMI patients were enrolled in the Beijing Elderly Acute Myocardial Infarction Study (BEAMIS) consecutively. Patients were categorised into 4 groups: hypoglycemia group (N=443, 23.9%), FPG≤5 mmol/l; euglycemia group (N=812, 43.8%), 5.1 mmol/l≤ FPG≤7 mmol/l (5–7 mmol/l); mild hyperglycemia group (N=308, 16.6%), 7.1 mmol/l≤FPG≤9 mmol/l (7–9 mmol/l); and severe hyperglycemia group (N=291, 15.7%), FPG≥9.1 mmol/l. The primary end point was in-hospital and 3-year all-cause mortality from the day of admission.