**Conclusion** The high maintenance dose clopidogrel can improve cardiac function. There is potential benefit in increasing coronary blood flow and improving myocardium perfusion. High maintenance dose clopidogrel decreases the acute and subacute thrombosis but do not increase the haemorrhage events.

**The Relationship Between Hypokalaemia at the Early Stage of Acute Myocardial Infarction and Malignant Ventricular Arrhythmia**

**Objective** To investigate the relationship between hypokalaemia at the early stage of acute myocardial infarction (AMI) and malignant ventricular arrhythmia (MVA) as well as the features of hypokalaemia.

**Methods** Total of 302 patients were involved in this study and conformed to the following conditions: getting AMI primarily, onset within 24 hours, accepted serum potassium test and Holter monitoring on admission, didn’t use diuretics before, hyperthyroidism, diabetes, vomiting or diarrhoea resulted from gastrointestinal diseases. Relevant data including types of AMI, namely STEMI or NSTEMI; infarct sites of STEMI; time interval from onset of AMI to admission; whether or not hypokalaemia (serum potassium<3.5 mmol/l) and MVA were recorded. The relationships between hypokalaemia and MVA, the time interval and hypokalaemia, types of AMI and hypokalaemia, infarct sites and hypokalaemia were analysed. SPSS 13.0 was used for statistical analysis. The categorical data was processed with chi-square test and p values below 0.05 were considered significant.

**Results** The incidence of hypokalaemia for 24 patients within 3 h from onset of AMI to admission was 37.5%. The incidence of MVA between the group with and without hypokalaemia had significant difference (10.47% vs 3.36%, p<0.05). The incidence of hypokalaemia between the group within 3h and group within 3 h to 24 h of time interval from onset of AMI to admission had significant difference (37.5% vs 15.47%, p<0.05). There was no significant difference in incidence of hypokalaemia between the group of STEMI and NSTEMI (20.35% vs 12.66%, p>0.05). There was no significant difference in incidence of hypokalaemia between groups with anterior wall AMI and non-anterior wall AMI (25.88% vs 18.31%, p>0.05).

**Conclusion** At the early stage of AMI, hypokalaemia is often present. MVA was close associated with hypokalaemia at the early stage of AMI, which indicated that hypokalaemia was a cause of death.

**The Relationship Study Between BNP Levels and CK-MB, cTNI Concentrations, the Degree of Coronary Artery Disease, Heart Function in Patients with ST-Segment Elevation Acute Myocardial Infarction**

**Objective** To analysis the relationship between BNP levels and CK-MB, cTNI concentrations, the degree of coronary artery disease and heart function in patients with acute ST-segment elevation myocardial infarction (STEMI).

**Methods** A total of 86 patients with AMI got intravenous thrombolysis within 6 h after myocardial infarction were divided into group A (BNP<100 pg/ml), group B (BNP100–500 pg/ml), C group (BNP>500pg/ml) according to the BNP peak level. The BNP level, CK-MB, and the cTNI peak concentrations within 24 h were examined. The heart function was examined by UCG within one week, cardioangiography was performed within 7–10 days after AMI, so that to evaluate the relationship between BNP levels and CK-MB, cTNI concentrations, the degree of coronary artery disease, heart function.

**Result** There were no statistical differences in baseline data among A, B, C groups, the higher the BNP level. The higher the CK-MB level (p<0.05), so is the cTNI peak level (p<0.05). There was a significantly correlation between BNP peak levels and CK-MB, cTNI peak concentrations, while the higher the BNP level, the lower the LVEF was (p<0.05), there was a significantly negatively correlation between BNP peak level and LVEF. Leaman coronary score show that scores in group C are higher than that in B, A groups (p<0.05) caused a positively significantly correlation between BNP peak level and leaman coronary score. There was increased trend of left ventricular end diastolic pressure (LVEDP) (p<0.05). Spearman correlation analysis showed significantly correlation between BNP peak levels and LVEF, cTNI peak concentrations and the degree of coronary artery disease, negative correlation-ship with LVEF.