and LVEF was measured. Serum creatinine (Scr) was measured before and after administered the medication 24 h, 48 h, 72 h, 7 days and 14 days using simplified MDRD equation to calculate estimated glomerular filtration rate (eGFR). Recording the major adverse cardiac events (MACE) occurrence within 30 d.
Results rhBNP group has a less dyspnoea time than the control group; The plasma BNP levels significantly lower than before treatment at different time point in the two groups. The LVEF was significantly higher in treatment group compared with baseline levels after treatment 24 h, while LVEDD significantly decreased even after discontinuation the treatments, which remain so when the 30 days. The LVEF and LVEDD improvements in rhBNP group were significantly better than in the control group after treatment 24 h, 14 days; At day 7 after PCI, the SCr had lowered to the baseline level in the rhBNP group. The eGFR after PCI was higher in the rhBNP group than that in the control group. The occurrence of CIN was signicantly lower in the rhBNP group than in the control group. The MACE event of 30 days in rhBNP group was significantly lower than the control group.
Conclusion rhBNP can promptly and effectively improve the heart function, reduce the incidence of MACE rate in acute myocardial infarction with heart failure patients, which also had a renal function protective effect in patients with and decreased incidence on CIN.

e0628 CLINICAL ANALYSIS OF ACUTE MYOCARDIAL INFARCTION IN YOUNG PATIENTS

doi:10.1136/hrt.2010.208967.628

Fu Xianghua, Wu Weili, Zhang Wenjing, Wang Xuechao, Wang Yanbo, Jiang Yunfa, Hao Guozhen. *The Second Hospital of Hebei Medical University*

Objective To investigate the clinical characteristics of acute myocardial infarction (AMI) in young patients.
Methods We carried out the contrasting analysis in the clinical data between 45 young patients (age≤45 years old) and 52 old patients (age≥60 years old).
Results Young AMI patients were often male, and had the typical clinical manifestations. The smoking rate, hyperfibrinogenemia rate and positive family history rate of the young people group were markedly higher than those of the old people group ($p<0.05$). The morbidity rate of patients with single coronary artery atherosclerosis was high in the young people group. The morbidity rate of patients with multiple coronary artery atherosclerosis was high in the old people group. The patients in the old people group who complicated with cardiac aneurysm, arrhythmia, heart failure, cardiac shock were much more than those in the young people group ($p<0.05$).
Conclusion Smoking, hyperfibrinogenemia and positive family history are main causes of AMI in young patients. Young AMI patients had the typical clinical manifestations with simple coronary lesion. The complications in the young people group are less than those in the old people group, and the prognosis was better than old cases.

e0629 THE EFFECTS OF SLEEP APNOEA SYNDROME ON MYOCARDIAL ISCHAEMIA IN PATIENTS WITH CORONARY HEART DISEASE DURING NIGHT

doi:10.1136/hrt.2010.208967.629

Fu Xianghua, Pang Jiangna, Wang Xuechao, Wang Yanbo, Jiang Yunfa, Wu Weili, Hao Guozhen, Gu Xinshun. *The Second Hospital of Hebei Medical University*

Objective 1. To investigate the relationship between sleep apnoea syndrome (SAS) and myocadial ischaemic events in patients with coronary heart disease (CHD). 2. To compare the differences of age, gender distribution, coronary angiography results in CHD patients with and without SAS. 3. To compare the differences of C-reactive protein (CRP) and haemoglobin levels in CHD patients with and without SAS.
Methods 25 CHD patients with typical symptoms of angina and ECG changes were enrolled in this study. After overnight polysomnography (PSG), all the cases were monitored by portable device at night for 7 days in order to exclude the conditions that the cases did not sleep or had waked, apnoea and hypopnoea events were recorded during 24: 00—4:00. Blood samples were collected 5—10 min after monitoring, and the levels of haemoglobin and C-reactive protein were examined.
Results 1. The incidence of myocardial ischaemia caused by apnoea and low ventilation was significantly higher in CHD patients with SAS. 2. There were significant differences between the two groups in the decrease of oxygen desaturation and the increase of heart rate. 3. BMI in CHD patients was significantly higher in those with SAS. There were more multi-vessel lesions and long lesions in CHD patients with SAS ($p<0.05$). The level of haemoglobin and C-reactive protein were much higher in CHD patients with SAS.
Conclusion 1. The incidence of SAS is much higher in patients with CHD, and the incidence of myocardial ischaemic events is higher in CHD patients with SAS. and the more seriuos respiratory disorders, the more easily myocardial ischaemia happens. With apnoea related to myocardial ischaemia and oxygen reduction, has nothing to do with the heart rate. 2. Lesions of SAS in patients with coronary heart disease are heavier than Simple CHD group in coronary angiography. BMI of SAS in patients with coronary heart disease are high than Simple CHD group. 3. The levels of CRP and haemoglobin are higher in CHD patients with SAS.

e0630 THE INFLUENCE ON THE PLATELET FUNCTION OF DIFFERENT STATINS COMBINED WITH LOADING DOSE CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME

doi:10.1136/hrt.2010.208967.630

Fu Xianghua, Wang Qian, Wang Yanbo, Wang Xuechao, Hao Guozhen, Jiang Yunfa, Fan Weize, Gu Xinshun. *The Second Hospital of Hebei Medical University*

Objective To investigate clinical effects of clopidogrel combined with simvastatin or fluvastatin on the platelet aggregation rate (PAR), platelet activation marker CD62P and the incidence of major adverse cardiovascular events (MACE) in patients with ACS.
Methods From April 2008 to December 2009, one hundred patients (79 male and 21 female, average age 61.46±12.84 years) who had been diagnosed as ACS were enrolled into this study. These cases were randomly divided into two groups, the Group A (n=50, treated with simvastatin 20 mg per night); the Group B (n=50, treated with fluvastatin 40 mg per night). Detailed clinical information was collected. PAR, CD62P, alanine aminotransferase (ALT), and aspartate aminotransferase (AST) of the two groups were measured. All cases received clopidogrel (a loading dose of 300 mg and then 75 mg daily), aspirin and Low molecular weight heparin. The MACE within 14 days were recorded.
Results There was no significant differences in baseline between the Group A and Group B. There was no significant differences in the PAR and expression rate of CD62P after 300 mg clopidogrel ($p>0.05$). 1h after treated with statins the expression rate of CD62P and PAR in the two groups were lower than that before treated with statins ($p<0.05$). After 14d treated with statins the expression rate of CD62P and PAR were still lower than that before treated with statins ($p<0.05$). There were no significant increase of ALT and AST in the both groups ($p>0.05$). After the above-mentioned medical treatment, the expression rate of CD62P and PAR in the two groups

were similar (p>0.05). There were no significant differences in the incidence of MACE between two groups.
Conclusion ACS patients with loading dose clopidogrel combined with simvastatin or fluvastatin could decrease the MACE, the results in two groups are similar. Neither simvastatin with clopidogrel nor fluvastatin with clopidogrel decreases the platelet activity of clopidogrel.

e0631 OBSTRUCTIVE SLEEP APNOEA SYNDROME IS ASSOCIATED WITH THE INCREASED RISK OF LOW-ANTIPLATELET RESPONSE OF CLOPIDOGREL IN PATIENTS WITH UNSTABLE ANGINA

doi:10.1136/hrt.2010.208967.631

Fu Xianghua, Li Shiqiang, Wang Qian, Gu Xinshun, Wang Yanbo, Wang Xuechao, Wu Weili, Xue Ling. *The Second Hospital of Hebei Medical University*

Objective To address the relationship between low antiplatelet response of clopidogrel and Obstructive Sleep Apnoea Syndrome (OSAS) in patients with unstable angina pectoris.
Methods Total of 112 patients hospitalised with unstable angina pectoris from February 2008 to December 2009 were enrolled in this randomised consecutive study. All patients accepted routine treatment including clopidogrel, aspirin, low molecular weight heparin daily. Platelet aggregation (PAR) parameters were measured on samples obtained at baseline and 2nd, 4th, 6th day. All patients were examined for the presence of sleep-disordered breath into 4 quartiles by AponeaLink. The concentration serum adrenaline and norepinephrine were measured in the morning at 06:00 after the sleep study.
Result There were no significant differences in the baseline data in all 4 quartiles. However, there was a significant differences in the number of diabetes patients in the first quartibesity, heale (p=0.0038) compared with other quartiles. At day 2 PAR were inhibited to 63.91% of baseline (p<0.01) and 88.38% (p>0.05) of baselinctively, in the first quartile. At each of these time points, platelet activity was significantly higher than in patients in other quartiles. At day 6 platelet aggregation were reduced to 32.37%, and 29.75% of baseline respectively in group 2 through 4 (p<0.01 for all). PAR was reduced significantly in patients in the second through fourth quartiles at day 6, but, it showed a lower reduction in the first quartile (p>0.05). Compared with that in thebidity of OSAS in the second and third were 25.0% and 14.3% (p<0.05), only 3.6% in the fourth group (p<0.01). Meanwhile, the concentration first group (60.7%), the mor n of serum adrenaline and nine were higher in the first quartile than others (p<0.05).
Conclusion OSAS is aicator of low clopidogrel response in unstable angina patients, and higher concentration of epinephrine and norepinephrine in OSAS pa reliable inpatients plaorepinephry a more important role in this situation.

e0632 A RANDOMISED COMPARISON STUDY OF RECOMBINANT STAPHYLOKINASE VS RECOMBINANT TISSUE-TYPE TISSUE PLASMINOGEN ACTIVATOR FOR SAFETY AND CORONARY ARTERY PATENCY IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

doi:10.1136/hrt.2010.208967.632

Fu Xianghua, Sun Jiaan, Liu Jun, Wei Yongyun, Fan Weize, Wang Xuechao, Wang Yanbo. *The Second Hospital of Hebei Medical University*

Objective To evaluate the efficacy and safety of r-SAK (recombinant staphylokinase) for acute ST-segment elevation myocardial infarction (STEMI).
Methods A total of 48 patients with acute STEMI randomised into r-SAK group and r-tPA group (each with 24 patients). In r-SAK group, 10mg r-SAK diluted up to 50ml with saline before administration, 2mg bolus over 2 min, followed by an infusion of the remaining 8mg over 30 min. While in r-tPA group, first 8mg bolus over 6 min, then 42 mg over a 90-min period. A 75U/kg heparin bolus was given as r-SAK or r-tPA was infusing for anti-coagulation treatment. CAG were performed at 90 min to confirm infarction location and IRA, stenosis was analysed by QCA, IRA flow was evaluated by TIMI grades, myocardial tissue reperfusion was assessed by TMPG. Acute complications and adverse events were recorded during 30 days after thrombolysis.
Results There was no significant difference in baseline data between r-SAK and r-tPA group. There was no difference in IRA distribution between the two groups, the IRA repatency rate (p=0.308), TIMI 3 flow (p=0.355), myocardial tissue reperfusion (p=0.530) in r-SAK group are slightly higher than those in r-tPA group, but the differences was not significant. The acute complications during 30-day period after thrombolysis, include allergic reaction (p=0.317), serious arrhythmias (p=0.775), heart failure (p=0.530), cardiac shock (p=1.000), IRA re-occluded (p=0.555), postinfarction angina (p=0.734) and death (p=0.317), have no significant difference between the two groups. The bleeding complications of r-SAK group were slightly less (p=0.125). No statistic difference in adverse events was found between the two groups.
Conclusions r-SAK proved to be at least as effective as alteplase in inducing early coronary artery patency for STEMI with higher fibrin specificity than r-tPA, r-SAK, and less bleeding complications. The safety of r-SAK thrombolysis therapy is at about the same level of that of r-tPA, not associate with excess mortality and complications of arrhythmia, postinfarction angina and haemorrhage.

e0633 THE EFFECT ON LEFT VENTRICULAR FUNCTION AND SAFETY OF HIGH MAINTENANCE DOSE OF CLOPIDOGREL IN PATIENTS WITH ACUTE ANTERIOR MYOCARDIAL INFARCTION UNDERGOING SELECTIVE PCI

doi:10.1136/hrt.2010.208967.633

Fu Xianghua, Wang Cong, Wang Xuechao, Wang Yanbo, Gu Xinshun, Fan Weize, Wu Weili, Jiang Yunfa. *The Second Hospital of Hebei Medical University*

Objective To assess the beneficial efficacy and safety of the high maintenance dose of clopidogrel in acute anterior myocardial infarction (AMI) patients undergoing selective percutaneous coronary intervention (PCI).
Methods Fifty two patients were enrolled into this study. These cases were randomly divided into the high maintenance dose group (n=26, 14 males, 150 mg clopidogrel per day) and the control group (n=26, 15 males, 75 mg clopidogrel per day). QCA and TIMI Myocardial perfusion grading (TMPG) were used to analyse the lesion and reperfusion of the culprit vessel and myocardium. Record the information of patients in-hospital, in the 1 month and 6 months including the level of BNP, left ventricular ejection fraction (LVEF), the left ventricular peak ejection rate (LPER), the left ventricular peak filling rate (LPFR), the left ventricular time to peak ejection rate (LTPER) and left ventricular time to peak filling rate (LTPFR).
Result 1. The CTFC of the high maintenance dose group after PCI was smaller than the standard dose group. The percentage of TMPG 3 grade was higher in the high maintenance dose group. 2. The left ventricular peak ejection rate (LPER), the left peak filling rate (LPFR) 6 months after PCI in the high maintenance dose group was higher than the control group. The left ventricular time to peak ejection rate (LTPER), left ventricular time to peak filling rate (LTPFR) 1 month after PCI in the high maintenance were lower than the control group. 3. There were less acute and subacute thrombosis cases in the high maintenance dose group than the standard dose group. There was no significant difference in haemorrhage events between two groups.