impact of high-normal level of FT4 on recurrence after catheter ablation of AF.

Methods Two hundred and forty-four consecutive patients with paroxysmal AF underwent circumferential pulmonary vein isolation (PVI) were prospectively enrolled. Exclusion criteria included prior or current thyroid dysfunction on admission, amiodarone medication for three months before admission.

Results After a mean follow-up of 416±204 (91–556) days, the recurrence rates were 14.8%, 23.0%, 35.3%, 38.7% from the lowest FT4 quartile to the highest FT4 quartile, respectively (p=0.016). Adjustment for age, gender, left atrium diameter, PVI, there was an increased risk of recurrence in the subjects with the highest FT4 quartile compared with those with the lowest quartile (HR 3.31, 95% CI 1.45 to 7.54, p=0.004). As a continuous variable, FT4 was also an independent predictor of recurrence (HR 1.10, 95% CI 1.02 to 1.15, p=0.016).

Conclusions Patients with high-normal thyroid function were at an increased risk of AF recurrence after catheter ablation.

**Clinical and Research Medicine: Thrombosis**

**e0576** CLINICAL ANALYSIS OF ANTICOAGULANT TREATMENT IN ACUTE PULMONARY EMBOLISM STRATIFIED AS INTERMEDIATE-RISK

Wang Yong, Zhang Hongliang, Fu Wai Hospital

Objective To analyse the clinical effect of anticoagulant treatment in acute pulmonary embolism stratified as intermediate-risk.

Method Patients with intermediate-risk acute pulmonary embolism (PE) were enrolled in Center for Pulmonary Vascular Diseases, Fu Wai Hospital between Aug 2008 and Apr 2010. The intermediate-risk acute PE was defined as stable haemodynamics and the presence of right ventricular dysfunction (echocardiography or CT showed right ventricle dilation, pressure overload, BNP or NT-proBNP elevation) and/or markers of myocardial injury (stratified as intermediate-risk acute pulmonary embolism were included in this study. There were 29 men (42.6%) and 59 women (57.4%) with a mean age of 61.7±13.4 years. Right ventricle (RV) dilatation or pressure overload was present on echocardiography or CT in 49 cases (%), NT-proBNP elevation in 58 cases (%) and cardiac troponin I positive in 8 cases (%). The mean onset time was 15.7±16.0 days. The main complications included dyspnoea (60 patients, 82.2%), chest pain (16 patients, 25.5%), cough (16 patients, 23.1%), haemoptysis (9 patients, 11.3%), syncope (7 patients, 10.3%), palpitation (5 patients, 7.4%), dizziness (4 patients, 5.9%) and cyanosis (1 patient, 1.5%). Referring to ECG, 54 cases (90%) presented S1QIIITIII and 27 cases (39.7%) with T wave inversion in V1–V4 leads. The symptoms, physical signs and results of laboratory tests were improved significantly after anticoagulation by heparin or low molecular weight heparin with a target INR of 2.0, heart rate (82±14.8 vs 69.9±7.5 beats/min, p<0.001) and D-dimer (5.8±4.7 mg/L vs 1.1±1.2 mg/L, p<0.001CTnT or CTnI positive).

Results Sixty-eight patients significantly decreased; PaO2 (68.7±11.7 mm Hg vs 85.4±31.3 mm Hg, p<0.001), PCO2 (37.2±5.3 mm Hg vs 40.3±4.6 mm Hg, p<0.001) and SaO2 (93.5±3.4% vs 95.6±2.1%, p<0.001) significantly increased. During hospitalisation, ALT or AST was slightly increased in 12 cases (%) and became normal after regular treatment; Twelve patients had mild bleeding, including 4 cases with positive urine occult blood, 4 cases with slight conjunctival haemorrhage, 2 cases with slight haemoptysis and 1 case with positive fecal occult blood.

Conclusions Anticoagulant treatment to patients with acute pulmonary embolism stratified as intermediate-risk significantly improved the symptoms, physical signs and results of laboratory tests with slight and low occurrence rate of complications.

**e0577** CLINICAL ANALYSIS OF FALSE NEGATIVE CASES BY VENTILATION–PERFUSION SCINTIGRAPHY COMPARED TO CT PULMONARY ANGIOGRAPHY IN DIAGNOSIS OF ACUTE PULMONARY EMBOLISM

Wang Yong, Zhang Hongliang, Fu Wai Hospital

Objective Although ventilation–perfusion scintigraphy (V/Q scan) is a robust and well established diagnostic test for suspected pulmonary embolism, false negative cases still exist. This study

**GWICC Abstracts 2010**

B-TYPE NATRIURETIC PEPTIDE ON CORONARY CIRCULATION IN YORK PIGS MODEL OF ACUTE MYOCARDIAL INFARCTION WITH HEART FAILURE

Jing Zhang, Xianghua Fu, Qingsheng Wang, Xinya Fan, Yanbo Wang, Xuehao Wang, The No. 1 Hospital of Qinhuangdao; The Second Hospital of Hebei Medical University

**Objective** To evaluate the impact of intravenous administration of rhBNP on coronary artery haemodynamics in York pigs model of AMI-HF.

**Methods** Total of 14 York pigs were included in this study. The AMI-HF models were made by coronary occlusion and microthrombus perfusion, pigs were randomized into saline group and rhBNP group. Administration of rhBNP (bolus of 1.5 μg/kg followed by a continuous infusion of 0.01 μg·kg⁻¹·min⁻¹ for 60 min, and then the dosage can be increased to 0.02–0.03 μg·kg⁻¹·min⁻¹ until LVEDP<12 mm Hg, maintaining MBP=65 mm Hg) in rhBNP group. The saline group was given equal volume of normal saline using the same method. Coronary pressure (Pc), the average peak velocity (APV), coronary vascular resistance (CR), coronary flow reserve (CFR) and coronary diameter were recorded simultaneously at baseline, instant after the model established, 60 min after continuous infusion of 0.01 μg·kg⁻¹·min⁻¹ rhBNP and the time point of LVEDP<12 mm Hg. The coronary blood flow was measured at rest and maximal hyperaemia.

**Results** 12 animals achieved the standard of AMI-HF model successfully, the observation parameters were recorded at baseline before balloon occlusion, instant after the model established, 60 min after continuous infusion of 0.01 μg·kg⁻¹·min⁻¹ rhBNP and the time point of LVEDP decreased to <12 mm Hg. Changes of Coronary artery parameters: There is no significant difference of coronary diameter, APV, CR and CFR in saline group. Coronary artery diameter increased after rhBNP administration. According to the intracoronary Doppler flow results, APV and CFR were significantly increased and CR decreased after rhBNP administration. CFR was significant rebound after continuous infusion of 0.01 μg·kg⁻¹·min⁻¹ rhBNP for 30 min. And compared with the control group at the same observation point, APV and CFR significantly increased and CR significantly decreased at the stage of infusion 0.010 μg·kg⁻¹·min⁻¹ Doppler parameters of renal artery, there was no difference of rhBNP LVEF measured by echocardiography was lower than baseline after the models established and tended to increase after administration of rhBNP, but no significance was found compared with that in saline Group and that immediate after models established.

**Conclusion** It could increase blood flow of injury coronary artery, improve CFR and improve the coronary and administration of rhBNP in pigs with AMI-HF.
aimed to investigate the characteristics of false negative pulmonary embolism cases by V/Q scan.

**Method** During Jun 2008 to Apr 2010, patients with acute pulmonary embolism underwent both ventilation–perfusion scintigraphy (V/Q scan) and spiral CT pulmonary angiography (CTPA) were systematically reviewed. The patients were grouped by results of CTPA. Group 1: CTPA showed that the main pulmonary or lobe arteries were involved; Group 2: CTPA showed that the thrombi were limited to segmental or subsegmental pulmonary arteries. The characteristics of the false negative cases by V/Q scan were analysed.

**Results** In all 35 acute pulmonary embolism patients were included. There were 13 males (37.1%) and 22 females (62.9%) with a mean age of 59.3 ± 15.0 years. The mean onset time of pulmonary embolism was 9.9 ± 7.3 days and the mean interval time between V/Q scan and CTPA was 3.7 ± 2.5 days. There were 1 (4.4%) false negative cases out of 25 patients by V/Q scan in group 1 and 4 (33.3%) false negative cases out of 12 patients in group 2 (p < 0.001).

**Conclusions** The incidence of false negative cases in diagnosing acute pulmonary embolism by V/Q scan is increased significantly when CTPA showed that thrombi are limited to segmental or subsegmental and further branches of pulmonary arteries. In the clinical setting of highly suspected acute pulmonary embolism, even though the V/Q scan was negative, CTPA is needed for more diagnostic information.

**Clinical and Research Medicine: Hypertension**

**e0578**

**COMBINED NIFEDIPINE SUSTAINEDRELEASE TABLET WITH BETALOC TO TREAT ESSENTIAL HYPERTENSION**

Ding Shaoxiang, 2Hu Kunfang, 2Wang Wei, 1Kang Le Hospital, Qinghai Province, China; 2Center of Disease Control, Middle District Of Xining, China

**Objective** To investigate the clinical efficacy of the treatment of essential hypertension combined nifedipine sustained-release tablets with betaloc.

**Methods** 60 cases of essential hypertension discovered recently were divided into two groups in random, 30 patients in each group. The control group were given nifedipine sustained-release tablets 10 mg, twice a day at 08:00 and 20:00 oral; treated group were at the same of nifedipine sustained-release tablets with control group, but increased betaloc 25 mg before lunch. Measured blood pressure twice a week and total of 8 weeks.

**Results** In control group, significant therapeutic effect in 11 cases, there were clear therapeutic effect in 11 cases, no treatment effect in 8 cases, the total therapeutic efficacy was 73.3%; In treated group, significant therapeutic effect in 18 cases, there were clear therapeutic effect in 11 cases, no treatment effect in 1 cases, the total therapeutic efficacy was 96.7%; There was significant difference between two groups (χ² = 7.13, p < 0.05). In control group, there was no significant change in heart rate (p = 0.05); But in treatment group, heart rate decreased at average of 10 times min⁻¹, There was obvious difference in Statistics (p < 0.05).

**Conclusions** It is a good way to treat essential hypertension combined nifedipine sustained-release tablets with betaloc, and there is a mutual synergy, worthy to be popularised.

**e0579**

**NOVEL COAGULATION REGIME METHOD FOR CTO PRIOR TO PCI**

Michael CL Lim, Singapore Medical Specialists Centre

**Objective** The aim of this study is to demonstrate that coagulation regime for patients with CTOs enable successful PCI.

**Clinical and Research Medicine: Hypertension**