

(33.33%) were in junctional rhythm, however, five cases (55.56%) were in NSR, three cases (33.33%) were in AF and one (11.11%) was in junctional rhythm by far. Of three cases more than one year after operation, two cases (66.67%) were in NSR, one case (33.33%) was in AF. The cardiac function (NYHA) of 84.62% was grade I and 15.38% grade II. No thrombo-embolism occurred. Sinus bradycardia occurred in two cases during hospitalisation. 13 patients were followed up, reviewing ECG and echocardiography. The overall results of follow-up of cardiac rhythm were NSR in eight cases (61.54%), AF in four cases (30.77%), and junctional rhythm in one case (7.69%). Within seven cases whose heart rhythm immediately were able to turn NSR, one case converted to AF later, the rate of maintenance of NSR was 85.71%, however, six patients could not be transferred into NSR instantly, only two cases (33.33%) turned into NSR. In NSR group left atrial diameter ECG (LAD) values reduced significantly after cardioversion ($t=6.9580$, $p=0.0000$), while LAD in AF group had no significant changes ($t=0.7308$, $p=0.4925$). The successful transfer rate was 71.43% in patients whose AF duration was less than 5 years and was 50% in patients whose AF duration was more than 5 years. There was no significant difference between the two AF duration groups ($X^2=0.174$, $p=0.6788$).

Conclusion Electrical cardioversion after bipolar radiofrequency maze operation was an effective option for the treatment of AF. The best time for cardioversion was within 6 months, which had high immediate success rate and be able to maintain a higher rate of NSR. Those who can be instantly converted to NSR, NSR maintenance rates are relatively high, but cannot be converted to NSR immediately who were less likely to NSR. With the prolonged time, successful rate of turning to NSR after electrical cardioversion reduced gradually. The effect of electrical cardioversion would be better if LAD were significantly reduced.

Related Subjects: Pulmonary Hypertension

e0664 **CLINICAL RESEARCH ON INFLUENCE FACTORS OF PULMONARY ARTERY SYSTOLIC PRESSURE DERIVED FROM TRICUSPID REGURGITATION BY ECHOCARDIOGRAPH**

doi:10.1136/hrt.2010.208967.664

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Objective To explore which factors influence PASP calculated by echocardiograph through tricuspid regurgitation pressure gradient.

Methods The retrospective study recruited 869 consecutive inpatients of Department of Cardiology in Peking University First Hospital, excluding patients who had acute myocardial infarction, pericardial effusion, congenital heart diseases, acute pulmonary embolism and organic tricuspid diseases. Their admission NYHA classification, N-terminal pro-B-type natriuretic peptide (NT-proBNP), echocardiographic and other clinic data were collected. Pulmonary artery systolic pressure (PASP) was derived from trans-tricuspid regurgitation pressure gradient (TRPG) by echocardiograph. We analysed the correlations between PASP and age, sex, renal function, cardiopulmonary diseases and echocardiograph parameters, using single factor analysis and multivariate linear regression analysis.

Results Among these patients, 658 were found to have TR, with a proportion of 75.7%. PASP was independently correlated to chronic obstructive pulmonary disease (COPD) (B (SE): 2.489 (1.121), $p=0.027$), chronic pulmonary embolism (B (SE): 9.282 (2.175), $p<0.001$), aortic stenosis (B (SE): 13.846 (3.545), $p<0.001$), aortic regurgitation (B (SE): 2.386 (1.091), $p=0.029$), mitral regurgitation (B (SE): 2.093 (0.934), $p=0.025$) and hypertension (B (SE): 1.560 (0.677), $p=0.022$), but not to other cardi-

ovascular diseases such as cardiomyopathy, atrial fibrillation, coronary heart diseases and renal function ($p>0.05$). PASP had independent correlation with both NYHA classification (B (SE): 3.701 (0.468), $p=0.002$) and NT-proBNP (B (SE): 2.235 (0.569), $p<0.001$). PASP was correlated to TR severity positively (B (SE): 5.801 (0.798), $p<0.001$), but not parallel to it. Age was an important predictor of PASP (B (SE): 0.081 (0.027), 95% CI (0.028 to 0.134), $p<0.001$), with an average increase in PASP of 0.81 mm Hg per decade.

Conclusions Tricuspid regurgitation is common in cardiac patients. PASP was independently correlated to COPD, chronic pulmonary embolism, left ventricular valve diseases and hypertension, but not to cardiomyopathy, atrial fibrillation, coronary heart diseases and renal function. PASP elevated with the increase of NYHA classification and NT-proBNP. It may play an important role in the evaluation of heart function. PASP should not be substituted by TR severity on the valuation of pulmonary circulation pressure. Age was an important predictor of PASP.

e0665 **CLINICAL FEATURE AND FOLLOW-UP RESULTS OF 60 PATIENTS WITH PULMONARY ARTERY HYPERTENSION**

doi:10.1136/hrt.2010.208967.665

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Objective To review the clinical feature of pulmonary artery hypertension (PAH) and analyse the results of following up.

Methods Clinical feature of 60 PAH patients who was diagnosed as PAH from Dec 2007 to Dec 2009 were reviewed retrospectively and those patients were followed up.

Results Six patients (three patients were CTD) died and six patients lost contact during following up. Those patients were divided into two groups based on pathogeny, Pulmonary Arterial Hypertension Associated With Connective Tissue Diseases (PAH-CTD) group ($n=23$) and the Pulmonary Arterial Hypertension Associated With Non-Connective Tissue Diseases PAH-Non-CTD) group ($n=25$). The former patient's condition obvious more critical than the latter and 20 patients using PAH targeted drug. In the course of follow-up, the condition had relieved somewhat in the two group patients, but the former still serious than the latter.

Conclusion Many complicated reasons can lead to PAH. The patients of Pulmonary Arterial Hypertension Associated With Connective Tissue Diseases had high morbidity and unfavourable prognosis. It is beneficial for PAH-CTD patient's administrated with targeted drug treatment and pay attention to follow-up visit.

Related Subjects: Cerebrovascular Disease and Stroke

e0666 **VASOPRESSIN AND EPINEPHRINE VERSUS EPINEPHRINE ALONE IN MANAGEMENT OF PATIENTS WITH OUT OF HOSPITAL CARDIAC ARREST A METAANALYSIS**

doi:10.1136/hrt.2010.208967.666

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Objective A combination of vasopressin and epinephrine may be more effective than epinephrine alone in cardiopulmonary resuscitation, but evidence is lacking to make a clinical recommendation. Our meta-analysis conducted to estimate the efficacy of vasopressin

and epinephrine used together versus epinephrine alone in out-of-hospital cardiac arrest (CA).

Methods We searched MEDLINE for randomised trials comparing the efficacy of vasopressin and epinephrine versus epinephrine alone in adults who experienced out-of-hospital CA. The primary outcome was the return of spontaneous circulation (ROSC) and the survival rate on admission and discharge. We also analysed ROSC in subgroups of patients presenting with different arrest rhythms.

Results In total, 206 articles were enrolled and five studies were included. No differences were found between these groups (vasopressin and epinephrine group vs. epinephrine alone group), except for the survival rate at 24 h (OR 2.99, 95% CI 1.43, 6.28). No evidence supports the conclusion that vasopressin combined with epinephrine is better than epinephrine alone for ROSC, even amongst subgroups of patients.

Conclusion This systematic review of the efficacy of vasopressin and epinephrine found that its combined use is better for 24 h survival rate but only in one study which included 122 patients. Further investigation will be needed to support the use of this combination for out-of-hospital CA management.

e0667 THE ROLE OF RANTES FACTOR IN THE STUDY OF HYPERGLYCEMIA AND CORONARY HEART DISEASE

doi:10.1136/hrt.2010.208967.667

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Objective To study the correlative relationship of activated T cell chemokine (RANTES) and high blood glucose and coronary heart disease, and investigate the role of RANTES factor in hyperglycemia and coronary heart disease.

Methods The 360 patients were divided into Coronary Heart Disease (CHD) group (n=300) and control group (n=60) according to the Coronary Angiography (CAG), and CHD group were divided into acute coronary syndrome (ACS) group (n=180) and stable angina pectoris (SAP) group (n=120). The severity and extent of coronary lesions was analysed by CAG and typified by means of Gensini coronary score system. Blood samples of ACS patients were taken immediately on admission, and the 12 h fasting blood samples of other patients were taken in the day after admission, all patients were taken 3 ml blood from elbow vein and put into anticoagulant tube. Then all samples were centrifuged for 10 min with the speed of 3000 r/min, and the separated serum was frozen at -80°C refrigerator waiting for test. Linked immunosorbent assay was used to measure the RANTES concentration. We expressed the level of RANTES and other biochemical indicators in all groups with, and compare the differences between the three groups using AVONA (analysis of variance). And then, q test was used for pairwise comparison; multiple regression equation was used for analysing the relationships of RANTES chemokine, blood glucose and coronary artery disease; Spearman's correlation coefficient was used for analysing the correlation of RANTES chemokine and blood glucose.

Results Significantly increasing of RANTES concentration was observed in ACS group (222.57 ± 28.55 pg/ml) compared to the SAP group (199.77 ± 22.20 pg/ml) and the control group (162.06 ± 13.15 pg/ml) ($p < 0.05$). Positive correlation were seen between RANTE chemokines, fasting glucose, LDL-C and the Gensini score of coronary artery lesions ($p < 0.05$). Hyperglycemia was positively correlated with RANTES concentration ($r = 0.69$, $p < 0.05$).

Conclusions Hyperglycemia plays an important role in occurrence and prognosis of acute coronary syndrome (ACS), and blood glucose was positively correlated with RANTES concentration. The increasing of RANTES levels consistent with the increasing of the risk of type 2 diabetes, it plays an important role in various

complications of diabetes, and blood sugar, RANTES associated with coronary artery disease. RANTES factor may play an important role in high blood sugar and coronary artery inflammation complications, especially for the stability of ACS vulnerable plaque. The mechanism is that high glucose and its metabolites end products (AGE) may play an important role in the incidence of coronary heart disease, especially in ACS by the NF- κ B/RANTES/MMP-9 ways.

e0668 STUDY ON THE ANTI-OXIDATIVE FUNCTION OF KOREAN MONKSHOOD ROOT POLYSACCHARIDE

doi:10.1136/hrt.2010.208967.668

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Objective Exploring the anti-oxidative function of traditional Chinese herbal-Korean Monkshood Root polysaccharide.

Methods Using GE Corporation's KTA explore FPLC purification system, we separate and purify the Korean Monkshood Root polysaccharide. After establishing the anti-oxidation experimental model, experimental study of elimination of the ultra oxygen anion and DPPH free radical are carried out.

Results As the active ingredient, Korean Monkshood Root polysaccharides can remove O_2^{2-} and DPPH free radical, which shows that Korean Monkshood Root polysaccharide can eliminate free radical and has the function of anti-oxidation.

Conclusions Korean Monkshood Root polysaccharides can be used as a natural anti-oxidation for human cardiovascular disease treatment and preventive health care.

Related Subjects: Kidney and Cardiovascular Disease

e0669 ERYTHROPOIETIN COMBINED WITH L-CARNITINE TREATMENT OF RENAL ANAEMIA ON ENDOTHELIN AND LEFT VENTRICULAR REMODELLING

doi:10.1136/hrt.2010.208967.669

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Objective To observe the effects of Xuezhikang on blood lipids and the levels of plasma endothelins, thromboxane B_2 , 6-keto-PGF $_{1\alpha}$ in patients with primary hyperlipidaemia.

Methods 120 patients with primary hyperlipidaemia were enrolled in this study, 82 males and 38 females, age 36–74 years old, average ages (55 ± 9) years old. 12 weeks after taking Xuezhikang, the clinical effect and the effect on the level of plasma endothelins, thromboxane B_2 , 6-Keto-PGF $_{1\alpha}$ were compared before and after the treatment, and the relation between blood lipids and ratio of plasma endothelins, thromboxane B_2 to 6-Keto-PGF $_{1\alpha}$ were analysed.

Results 12 weeks after treatment, the level of TG, cholesterol (TC), low density lipoprotein cholesterol (LDL-C) and apoB $_{100}$ decreased sharply ($p < 0.05$ – 0.001); the level of serum high density lipoprotein cholesterol (HDL-C) elevated ($p < 0.05$); ratio of plasma endothelins decreased sharply ($p < 0.001$); rate value of thromboxane B_2 to 6-Keto-PGF $_{1\alpha}$ before treatment was higher than health people but lower after treatment ($p < 0.01$). There were positive correlations between the decreased TC, TG, LDL-C and decreased ET-1, the ratio TXB $_2$ /6-keto-PGF $_{1\alpha}$ ($r = 0.832$ – 0.963 , $p < 0.01$ – 0.001). The same positive correlation was found between the decreased ET-1 and the ratio of TXB $_2$ /6-keto-PGF $_{1\alpha}$ ($r = 0.987$, $p < 0.001$).