CONCLUSIONS Aortic atherosclerosis has a strongly positive association with CAVD, and it may predict this disease. Besides aortic atherosclerosis, high levels of age, pro-BNP, and HCY increase the risk of CAVD. Interestingly, women were more likely to suffer from CAVD.

GW26-e3876
D-dimer predicts all-cause mortality and cardiovascular events in Patients receiving warfarin treatment after went mechanical heart valve replacement
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OBJECTIVES The aim of the present research was to investigate whether D-dimer can predict all-cause mortality and cardiovascular events in patients undergoing mechanical heart valve replacement (50/C6 patients). This was a prospective and observational study.1163 Patients (16.4%) During an average follow-up period of 30±14 months(1-54 months), A total of 42 cardiovascular events and 40 deaths occurred among the 191 patients who had elevated D-dimer, as compared with 47 cardiovascular events and 52 deaths among 972 patients(4.0%) normal D-dimer levels(>255ng/mL); Log-rank test revealed that patients with elevated D-dimer levels experienced higher cardiovascular events(Hazard ratio:12.82, 95% CI of ratio:7.15-22.98, p<0.001) and all-cause mortality (Hazard ratio:9.36, 95% CI of ratio:5.28-16.60, p<0.001).

CONCLUSIONS D-dimer might be a useful marker to predict cardiovascular events and all-cause mortality in patients receiving warfarin anticoagulation after mechanical heart valve replacement. (ClinicalTrials.gov Identifier: NCT01996657).

GW26-e1255
Genetic Polymorphisms of PXR and POR are Associated with Increased Warfarin Maintenance Dose in Han Chinese
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OBJECTIVES The aim of this current study is to explore whether PXR, POR, and CYP2C9 IVS-65G>C are the upstream factors impacting an individual variability of warfarin maintenance dose in Han Chinese, the most common population in China.

METHODS The genotypes of NR1I2 -25385C>T, NR1I2 7653G>A, POR A503V, POR 831 -35C>T, and CYP2C9 IVS-65G>C were detected by PCR-restriction fragment length polymorphism (RFLP) in 188 Han Chinese patients with mechanical heart valve replacement. The statistics were analyzed by ANOVA and multiple linear regression.

RESULTS The warfarin maintenance dose was higher in patients with the SNP of NR1I2 7653 G/A alleles than those in GG group (GA: 3.00±1.40 mg/d vs. 2.47±1.43 mg/d, P < 0.05); AA: 2.92±1.40 mg/d vs. 2.47±1.43 mg/d, P < 0.01). The patients with POR 831 -35 CT/TT alleles took significantly higher warfarin maintenance dose than those in CC group (0.90±1.40 mg/d, 3.05±1.55 mg/d vs. 2.55±1.36 mg/d, P < 0.05, respectively). Compared with the alleles of CYP2C9 IVS-56c, the warfarin maintenance does in GC group was significantly higher than that in G group (4.00±1.44 mg/d vs. 2.78±1.41 mg/d, P < 0.01). The multiple regression model including genotypes of PXR, POR, VKORC1, CYP2C9, CYP4F2, and clinical factors interpreted 57.5% of warfarin maintenance dose variance, where NR1I2 7653G>A, POR 831 -35C>T, and CYP2C9 IVS-65G>C contributed 1.4%, 2.1%, and 1.9% respectively.

CONCLUSIONS The SNPs NR1I2 7653G>A, POR 831 -35C>T, and CYP2C9 IVS-65G>C are significant factors to individual variability of warfarin maintenance dose in Han Chinese.

GW26-e2936
The ACE2-Ang-(1-7)-Mas Axis may be the angel and play the protective role in the occurrence and maintaining of Atrial Fibrillation in The Patients with Rheumatic Valvular Heart Disease
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OBJECTIVES By analysis of the correlation between the expression of the ACE2-Ang(1-7)-Mas axis in the patients with rheumatic valvular heart disease and the occurrence of atrial fibrillation, to reveal the function of the ACE2-Ang(1-7)-Mas axis in the occurrence and maintaining of atrial fibrillation and to find new targets for the prevention and treatment of atrial fibrillation.

METHODS Collect the basic information, examination results, previous and right atrium tissues of the patients with rheumatic heart valve disease who accepted the cardiac valve procedures (total 60 patients, including 32 with AF and 28 with SR). Use ELISA kits to detect the ACE, ACE2, Ang (1-7) and Ang I concentrations in the serum samples, real-time fluorescent quantitative PCR to detect the relative mRNA expression of ACE, ACE2, Ang (1-7), Ang II, Mas and AT1 receptor in atrial tissues. At last, analysis the difference and correlation between the two groups.All the patients agreed and signed informed consent before participating in the study.

RESULTS In the AF group, (1) the diameter of left atrium is significantly greater than that of the SR group, (2) the serum concentration of ACE (246±12.87 & 135.78±11.08 pg/ml, p<0.05), AngII(45.88±2.87 & 35.78±1.08 pg/ml, p<0.05) and relative mRNA expression of ACE(2.8±1.1 & 1.6±1.0, p<0.05), AngII(2-△CT: 3.99±1.21 & 1.00±0.43, p<0.05) and AT1 receptor in the atrial tissues (2-△CT: 6.17±1.19 & 1.00±0.003, p<0.05) are obviously higher than that of the SR group, positively correlated with the left atrium diameter (Pearson test, p<0.05); (2) the serum concentration of ACE(2.78±0.74 & 1.15±0.57UL, p<0.05), Ang(1-7)(146.05±17.61 & 321.71±36.50 pg/ml, p<0.05) and relative mRNA expression of ACE (2-△CT: 4.10±0.21 & 1.00±0.01, p<0.05); (3) Ang(1-7) (2-△CT: 0.90±0.43 & 1.00±0.16, p<0.05) is significantly lower than the SR group, and negatively correlated with left atrium diameter (Pearson test, p<0.05; however, the Mas receptor (2-△CT: 4.89±0.81 & 1.00±0.26, p<0.05) is significantly higher than the SR group, positively correlated with the left atrium diameter and the relative expression of AT1 receptor (Pearson test, p<0.05); (4) the serum concentration and relative mRNA expression of ACE and ACE2, Ang (1-7) and Angllis negatively correlated (Pearson test, p<0.05).

CONCLUSIONS For the patients with rheumatic valvular heart disease, the expression of ACE2-Ang-(1-7)-Mas may be the antagonist to the axis of ACE-Ang II-AT1, and by this way inhibits the atrial remodeling, and plays a protective role on the occurrence and maintaining of atrial fibrillation.

GW26-e1308
Analysis of clinical symptoms of 67 cases of infective endocarditis
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OBJECTIVES To investigate the infective endocarditis (infective endocarditis, IE), pathogenic, clinical features and treatment strategies.

METHODS A retrospective analysis of clinical data of the First Affiliated Hospital of Nanchang University about five years, 67 cases of IE.

RESULTS Streptococcus viridans accounted for 36.8%, 6 cases of Staphylococcus aureus accounted for 31.6%, Structural heart disease, 59 cases (88.1%), rheumatic heart disease in 22 cases (37.2%), including two cases of prosthetic valve, congenital heart disease in 25 cases (42.3%). Ultrasound technology in the detection rate of cardiac neoplasm in 56 cases (83.3%), the positive rate is much higher than the blood culture.
CONCLUSIONS With the widespread use of antibiotics and changes of pathogenic microorganisms, the clinical features of IE had a significant change, echocardiography and blood cultures contribute to the diagnosis of IE; the basis of heart disease is one of the IE common cause, and surgical treatment promptly may obtain better result.

GW26-e0212 Utility of C-reactive protein and Red Blood Cell Distribution Width in assessing the outcome of infective endocarditis Xuebiao Wei, Anping Cai, Dan Lian, Jiang Lei, Jiaxin Zhan, Yingling Zhou, Dangying Yu Department of Cardiology, Guangdong Cardiovascular Institute, Guangdong General Hospital, Guangdong Academy of Medical Sciences

OBJECTIVES To elucidate the merits of C-reactive protein (CRP) and Red Blood Cell Distribution Width (RDW) on the prognostic evaluation in patients with infective endocarditis (IE).

METHODS A retrospective study was performed, and the demographic and clinical characteristics of participants were collected with the use of electronic case report form. The association of CRP and RDW with in-hospital death was analyzed.

RESULTS Totally 307 patients diagnosed as IE were enrolled, in which 45 died during hospitalization period. When compared to survival patients, CRP and RDW level in mortality participants was significantly higher. In addition, increased level of WBC, vegetation size of >10mm and decreased hemoglobin, glomerular filtration rate, surgical treatment rate were found in dead patients. Multivariate analysis showed that CRP (OR=4.260, P=0.002), RDW (OR=3.435, P=0.002), glomerular filtration rate (OR=0.296, P=0.014), vegetation size of >10mm (OR=2.111, P=0.042) and surgical treatment (OR=0.405, P=0.023) were independent associated with in-hospital death. Moreover, CRP>35.05 mg/L had a sensitivity of 82.2% and specificity of 74.3% for predicting in-hospital death. The sensitivity and specificity of RDW>0.1587 were 86.7% and 59.2%, respectively. Combining use of CRP and RDW showed better performance in predicting in-hospital death.

CONCLUSIONS Increased CRP and RDW were associated with in-hospital death in patients with IE.

GW26-e3557 The diagnostic value of Transsthoracic echocardiography in the assessment of anastomotic leakage after aortic replacement Aijia Yu, Qing Lv Department of Ultrasound, Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province Key Laboratory of Molecule

OBJECTIVES The patency of transplanting coronary artery and no anastomotic fistula are the determinant to the successful aortic replacement operation. Anastomotic leakage is the most serious postoperative complications. Accurate and early detection of the anastomotic leakage has the important clinical significance. The aim of this study is to discuss the diagnostic value of transthoracic echocardiography (TEE).

METHODS Thirty cases of aortic aneurysm and aortic dissection which occurred postoperative complications were involved in this study from June, 2013 to September, 2014 (including 15 cases of Bentall; 5 cases of Bentall+ Total aortic arch replacement; 8 cases of Bentall+ Total aortic arch replacement + elephant trunk; 2 cases of abdominal aorta aneurysm stenting). Their TTE features were to be retrospective analyzed.

RESULTS ①Thirty patients were diagnosed with ascending aortic dissection, 15 patients with ascending aortic aneurysm and 2 patients with abdominal aortic dissection before the surgery by TEE; ②Postoperative TTE showed that: The anastomotic leakages were located at coronary artery and the edge between the artificial and autologous aortic anastomotic leakage. Of these, simple right coronary artery anastomotic leakage occurred in 11 cases (36.7%); simple left coronary artery anastomotic leakage occurred in 6 cases (20.0%); left combined with right coronary artery anastomotic leakage were in 4 cases (13.3%); simple proximal anastomotic leakage between artificial and autologous aorta were in 4 cases (13.3%); right coronary artery anastomotic leakage combined with increased peak artificial aortic valve velocities was in 1 case(3.3%); left coronary artery anastomotic leakage combined with autologous ascending aortic aneurysm, causing the compression of the superior vena cava and right pulmonary artery and having thrombosis in the false lumen was in 1 case(3.3%). Paravalvular artificial aortic valve leakage combined with severe regurgitation was in 1 case(3.3%); coronary artery anastomotic leakage combined with paravalvular artificial aortic valve leakage and thrombosis in autologous ascending aorta was in 1 case(3.3%); the anastomotic leakage between artificial and autologous aorta combined with the compression of artificial aorta in ascending aorta was in 1 case(3.3%); The complications include the anastomotic leakage, paravalvular artificial aortic valve leakage and thrombosis.

CONCLUSIONS TTE can noninvasively and accurately detect the anastomotic leakage and other severe complications; it can be used to be the preferred imaging method in clinical settings.

CARDIOMYOPATHY

GW26-e0244 Predictors of long-term survival patients with cardiac amyloidosis: prognostic value of late gadolinium enhancement in cardiac magnetic resonance Geng Qian, Guang Zhi, Zhenhong Fu, Feng Cao Department of Cardiology, Chinese People’s Liberation Army General Hospital

OBJECTIVES Cardiac amyloidosis is usually characterized by a poor outcome. We aimed to investigate the predictive value of late gadolinium enhancement (LGE) in cardiac magnetic resonance (CMR) for survival of cardiac amyloidosis patients.

METHODS We recruited a total of 162 consecutive patients with endomyocardial - biopsy proven cardiac amyloidosis. These patients undergoing CMR at enrollment were followed up for 5 years.

RESULTS 141 (87%) patients died during the 5-year follow-up, and 78 (48%) patients with poor short-term outcome (survival for less than one-year) were characterized by older (57±12 vs 51±15 years, p=0.016), more present with heart failure (42.3% vs 21.4%, p=0.006), pericardial effusion (57.7% vs 30.9%, p<0.001), sever thick interventricular septum (IVS) (16.4 vs 14.4, p=0.029) and LGE in CMR at enrollment (89.7% vs 51.2%, p<0.001). At multivariable cox regression analysis, heart failure (HR 1.79, 95%CI: 1.12-2.94, p=0.010), greater IVS (HR: 1.46, 95%CI: 1.09-11.1, p=0.021) and LGE in CMR (HR 5.16, CI: 1.60-12.9, p=0.001) emerged as independent predictors of all-cause mortality.

CONCLUSIONS We have showed LGE in CMR is the strong predictor of all-cause mortality in patients with cardiac amyloidosis. Examination of CMR provides valuable prognostic information concerning short and long-term outcome.

GW26-e4784 Value of Echo Myocardial Mechanical Parameters in Diagnosis and Prognosis of Cardiac Amyloidosis Lu Zhang, Jing Wang, Bin Feng, Wei Zhang, Jingjing Wang, Yunlai Chen, Guang Zhi Department of Cardiology of Chinese PLA general hospital

OBJECTIVES To assess the value of a novel velocity vector imaging(VVI)echocardiographic measurement of myocardial strain in diagnosis and prognosis of Chinese patients with cardiac amyloidosis.

METHODS 35 patients with biopsy-proved confirmed AL-cardiac amyloidosis,30 patients with asymmetric hypertrophic cardiomyopathy and 30 age-matched healthy volunteers were included in the study. Three groups underwent clinical and standard echo evaluation at baseline and VI. VI was used for the evaluation of LV segments, LV global systolic and diastolic function, regional and LV global endocardial (ENDO) longitudinal strain (LS). Then we followed these 35 AL-CA patients for 3 years and the primary end point was all-cause mortality. Clinical data, standard echo cardiographic parameters and systolic ENDO LS for 16 LV segments were tested as potential independent predictors of survival.

RESULTS ENDO LS in LV 16 segments, 6 walls and global LV were obviously decreased in AL-CA. However, those changes in HCM were variable. LV Basal regional ENDO LS was sensitive (85%) in differentiating AL-CA from HCM (ROC area under the curve was 0.916). During a median follow-up of 17.5 months (first to third interquartile: 7.2-28.5 months), 17 patients (50%) died. NYHA classification (hazard ratio [HR], 11.86; P = 0.000), Logpro-BNP (HR, 5.54; P = 0.03), and basal sepal ENDO LS (HR, 1.35; P = 0.000) were independent predictors of AL-CA.

CONCLUSIONS VVI echocardiographic measurement demonstrated significant differences in AL-CA and HCM: AL-CA is characterized by a