CHADS2 score was 0.65±0.80. There were 79.2% of them with paroxysmal AF. 51.2% of all the patients were with 0 score of CHADS2, 35.3% with 1 score, 13.5% with 2 or more than 2 score. The follow-up rate at the 1st week, 2nd week, 3rd week, 4th week, 2nd month, and 3rd month were 74.71%, 59.8%, 35.49%, 40.98%, 58.63%, and 36.47%, respectively. The INR values between 2.0-3.0 were respectively 15.49%, 34.43%, 38.12%, 38.28%, 33.11%, 30.65%, and INR>3.0 were 2.62%, 22.3%, 28.73%, 12.92%, 8.03%, 6.45%. Of all INR measurements, the percentage of INR values achieving the target therapeutic range of 2.0-3.0 was 31.68%, while INR values below therapeutic range was 54.81%. The TTR was 24.56%.
Conclusions: The early status of INR management would be very poor after AF ablation. Serious under-therapeutic INR in the first week post ablation may increase the risk of thromboembolism events. And more than 20% patients with over-therapeutic INR in the 2nd or 3rd week would be at the risk of hemorrhagic events.

GW25-e4362

Relation of high-sensitivity C-reactive protein and homo cysteine levels with recurrence of Paroxysmal atrial fibrillation after catheter ablation of atrial fibrillation

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Objectives: To investigate the relationship of high-sensitivity C-reactive protein and homo cysteine levels with recurrence of Paroxysmal atrial fibrillation after catheter ablation of atrial fibrillation.
Methods: A total of 126 patients with Paroxysmal atrial fibrillation underwent radiofrequency catheter ablation, all patients were followed up for 1 year and were allocated to Non-recurrence group and recurrence group according to recurrence of atrial fibrillation. Serum levels of high-sensitivity C-reactive protein and homo cysteine were determined before procedure and at one year of follow-up.
Results: Plasma high-sensitivity C-reactive protein and homocysteine levels pre and post procedure were higher than in recurrence group and Non-recurrence group. Plasma high-sensitivity C-reactive protein and homo cysteine in Non-recurrence group have a downward trends, while the recurrent group has a rising trend. And we have found that the serum levels of high-sensitivity C-reactive protein was positively correlated with homo cysteine.
Conclusions: The Level of hs-CRP and HCY is closely associated with recurrence of Paroxysmal atrial fibrillation after catheter ablation, it is valuable in predicting recurrence of Paroxysmal atrial fibrillation after radiofrequency catheter ablation.

GW25-e4373

Comparative study of Carto-3 system mapping and conventional fluoroscopic mapping by radiofrequency catheter ablation in the treatment of tachyarrhythmia with right-side pathways

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Objectives: The purpose of this study was to investigate whether Carto-3 mapping has more advantages than conventional mapping through comparing the success rate, duration of procedure, fluoroscopic time and radiation dose.
Methods: 40 patients with right-sided pathway (21 males, 19 females) who were aged 15 to 64 were enrolled into this study between June 2012 and March 2014 at the Second Hospital of Hebei Medical University, including 25 patients proceeded by conventional RFCA and 15 patients proceeded by RFCA guided by the Carto-3 system mapping. All of these patients had experiences of clinical tachycardia, one of them with Ebstein's anomaly; the rest had no documentation of structural heart disease. All patients were examined using electrocardiogram before and after operation. All antiarrhythmic drugs were discontinued for at least five half-lives before procedure. Electrophysiology study demonstrated right-sided APs in all the supraventricular tachycardia. The patients were separated into conventional group and Carto-3 group. For all patients, we recorded procedure time, which is defined as the interval from the initial insertion of the RFCA electrode to procedural success. We also recorded cumulative fluoroscopic time, radiation dose, dose area product, success rate and short-term recurrence rate, and compared these data between the conventional group and Carto-3 group. Statistical analysis: Statistical analysis was conducted with SPSS 19.0 software. The quantitative data were represented as mean±SD. The qualitative data were represented as a percentage. The quantitative data was checked using independent samples t-test. The qualitative data was checked using chi-square test or fisher test. The level of significance was set at 0.05.
Results: Compared with Carto-3 group, the procedure time in conventional group was significantly longer (85.36±41.32min vs 53.8±28.82 min, P <0.05). The fluoroscopic time was significantly longer in conventional group than in Carto-3 group (746.00±479.12s vs 328.26±131.84s, P <0.05). The radiation dose was significantly higher in conventional group than in Carto-3 group (85.30±39.60mGy vs 31.32±12.11mGy, P <0.05). The success rate of conventional group was similar to that of Carto-3 group (80% vs 100%, P>0.05). The short-term recurrence rate of conventional group was the same as that of Carto-3 group (9.5% vs 6.7%, P>0.05).
Conclusions: Carto-3 system mapping might be superior to conventional mapping and can shorten the fluoroscopic time and radiation dose, and improved the success rate. Carto-3 system mapping is feasible, safe and effective approach, especially applicable to patients with complex right-sided APs. Carto-3 system mapping could be considered as the first approach of ablation with right-sided APs.

GW25-e4454

The change of asymmetric NG, NG-dimethyl-L-arginine and oxygen stress in patients with coronary microvascular spasm angina

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Objectives: To investigate the change of asymmetric NG, NG-dimethyl-L-arginine(ADMA) in patients with coronary microvascular spasm angina(CMSA), and elucidate the possible mechanism of CMSA.
Methods: Screening 20 CMSA patients hospitalized in our hospital from June 2005 to June 2007, the diagnosed standards of CSMA are typical angina pectoris, positive exercise stress test and normal coronary angiography, excluded other diseases, such as hypertension, diabetes, hypertrophic cardiomyopathy et al. We selected 20 normal persons with matching age and sex as control. The levels of ADMA, NO, ET-1, SOD, MDA, blood lipid, blood glucose, blood viscosity, fibrinogen were measured respectively.
Results: (1) Compared with control, the levels of ADMA, ET-1, MDA were significantly increased, but the level of NO and SOD were significantly decreased in CMSA group. ADMA was positive correlated with the ratio of ET-1/NO. (2) There were statistical significance between control and CMSA group for the levels of SOD and MDA. (3) There were no differences for the levels of blood lipid (TC, TG, LDL, HDL-C, Lpa), blood glucose, blood viscosity and fibrinogen between two groups.
Conclusions: This study shows endothelial dysfunction in the patients with CMSA is associated with the increase of ADMA. Oxide stress may also play an important role in CMSA.

GW25-e5254

Electrophysiological characteristics of left atrial diverticulum in patients with atrial fibrillation: electrograms, impedance and clinical implications

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Objectives: Left atrial diverticulum (LAD) is not rare in patients with atrial fibrillation (AF). Recent reports focused on its morphology however data on its electrophysiological characteristics are lacking. Our study is to investigate the electrogram and impedance features of LAD.
Methods: This study included 24 patients (mean age, 58.5±10.7 years) with LAD undergoing catheter ablation for AF and 24 gender-and-age-matched individuals without LAD as controls. A bipolar LAD eletroanatomic map was acquired in sinus rhythm from all study participants. Points were acquired for diverticulum in the LAD group and for corresponding areas in the control group. Eletrogram deflections were counted, bipolar voltage and impedance were measured for each point, and average Δimpedance and highest Δimpedance were calculated.
Results: A total of 234 points were collected in the two groups. In LAD vs. control group, median (Q1, Q3) of electrogram deflections was 6 (5, 7) and 4 (4, 5) (P<0.0001), respectively, voltage was not significantly different (1.58±0.68mV vs. 1.28±0.65mV, P=0.10), and average Δimpedance was significantly higher in the LAD group (19.5±9.0Ω vs 3.9±1.7Ω, P<0.0001). A cut-off value of 9.5Ω for Δimpedance predicted LAD with sensitivity, specificity, and positive and negative predictive values of 83.5%, 92.8%, 92.1% and 84.9%, respectively.
Conclusions: Electrogram was more fractionated and impedance higher at LAD than in corresponding areas without LAD, which might help to differentiate LAD during catheter ablation for AF.

GW25-e0525

Radiofrequency catheter ablation of the premature ventricular contractions originating from papillary muscles guided by transthoracic echocardiography

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Objectives: The purpose of this study was to observe the prevalence,electrocardiogram characteristics and 3-dimensional electroanatomic mapping and radiofrequency catheter ablation of patients with premature ventricular contractions (PVC)arising from the papillary muscles (PAP).
Methods: Between May 2009 and February 2013, among 125 consecutive patients who underwent a catheter ablation of a PVC, seven patients with an originate from PAP were identified (there male, four female). Electroanatomic mapping of right ventricular and ablation was performed with a 7.5-French quadripolar deflectable 3.5-mm-tip external-irrigated (Navistar ThermoCoolTM, Biosense Webster) ablation catheter assisting by transthoracic echocardiography, analyse the electrocardiogram characteristics and electroanatomic mapping characteristics with the patients.
Results: The site of origin of 7 patients were identified by transthoracic echocardiography as following: posterior papillary muscles of left ventricular (LV-PPM)