METHODS From 2014 to 2015, non-valvular AF patients at high risk of stroke with or without previous stroke were selected for LAA closure and outcome observations analyzed.

RESULTS LAA closure with Watchman devices were attempted in 119 115 patients, of which, 114 were successful (99%). A total of 115 devices were implanted, with one patient implanted with 2 devices due to two large lobes of the LAA. The mean CHA2DS2-VASc score was 2.77 ± 1.51 and the mean HASBLED score was 1.46 ± 0.98. No deaths occurred following implantations of the devices. Major safety events occurred in 3 patients (2.61%), of which, 2 were device-related cerebral embolisms, and 1 was a case of pericardial tamponade that required emergent surgery. Trans-esophageal echocardiography (TEE) were performed 45 days after implantation, which showed no major residual flow (i.e., >5mm). Two patients had thromboi-formations on the devices and received prolonged warfarin therapy. The remaining 112 patients discontinued warfarin after 45days, and our follow-up of 12 months, reported no stroke or major bleeding.

CONCLUSIONS In our initial single-center experience, percutaneous LAA closure was a feasible and safe procedure that helped to prevent stroke in Chinese patients with non-valvular AF.

GW27-e0643
Exercise is associated with reduced risk of atrial fibrillation

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OBJECTIVES To investigate the correlation between exercise and atrial fibrillation(Af), and to analyze the other factors related to the occurrence of atrial fibrillation.

METHODS 9839 hospitalized patients in department of Cardiology of our hospital (May 2014 ~ October 2015) were selected, of whom 964 patients were with atrial fibrillation. Grouping according to the degree of exercise: 6949 cases of patients with very little or no exercise, 2890 cases of moderate exercise. All patients had the measurement of blood pressure, height, waist circumference, BMI and other related indicators, and then statistical (binary logistic) analysis was done.

RESULTS The incidence of atrial fibrillation was 9.80%, the incidence of Af among the patients with little or no exercise was 11.66% (810 cases), and the incidence in patients with moderate exercise was 5.33% (154 cases), Logistic regression analysis showed that moderate exercise can significantly reduce the incidence of atrial fibrillation occurence (P<0.001). Meanwhile, sex, taking antihypertensive drugs and other factors were associated with the occurrence of atrial fibrillation.

CONCLUSIONS The occurrence of atrial fibrillation is affected by many factors, and exercise is one of them. Moderate exercise can reduce the risk of atrial fibrillation.

GW27-e0678
High-resolution relative to conventional mapping increases accuracy and reduces duration of pulmonary vein isolation in atrial fibrillation ablation

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OBJECTIVES To comparatively assess duration and efficacy ofhigh-resolution and conventional mapping for guiding pulmonary vein (PV) isolation in atrial fibrillation (AF) ablation.

METHODS In this single operator, prospective, observational study,62 consecutive patients (aged 60.9±12.6 years; 64.5% males) with AF(48.4% paroxysmal)underwent ablation aimed at PV isolation using high-resolution PentaRay catheter (n=30) or conventional CARTO-Merge (n=32; with prior PV computerized tomography) mapping. Main study outcomes were procedural and fluoroscopy times, and number of gaps requiring re-isolation.

RESULTS Patient baseline characteristics were similarly distributed by mapping modality and all PVs were successfully isolated. PentaRay catheter vs. CARTO-Merge mapping was associated with significantly (all P<.01)shorter total procedural (107.4±26.1 vs. 129.3±22.6min) and fluoroscopy (6.5+4.7 vs. 15.4+4.7min) times, and lower number of gaps (2.5+1.6 vs. 6.3+3.7).

CONCLUSIONS Relative to conventional CARTO-Mergemapping for guiding PV isolation in AF ablation, high-resolution PentaRay catheter mappingwas more accurate and less time consuming, minimizing fluoroscopy use because of better image integration and visualization.

GW27-e0680
Radiofrequency catheter ablation of symptomatic premature atrial contractions with non-pulmonary vein origin

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OBJECTIVES To explore the efficacy and safety of short term outcome of catheter ablation for symptomatic PACs.

METHODS Symptomatic PACs patients without organic heart diseases were enrolled. All of them were underwent electrophysiologic study for PACs and ablation using three-dimensional mapping technology.

RESULTS There were 9 patients (4 male) with symptomatic PACs included in this study, and the average age was 44.1±17.2 years. The average PACs were 19148.0±5437.8/24h (9860-28100), the paired PACs were 180.9±208.8 (0-660) and the paroxysmal atrial tachycardia (AT) was 87.2±92.6 (0-239) with total account of 419.9±386.8 (0-1042). The common site distribution for PACs was ostium of the coronary sinus, crista terminalis, annulus, and appendage. All the patients were successfully ablation, and the average PACs were decreased to 39.3±46.1/24h (0-134). During a median of 9 months follow up, there were no symptomatic PACs recurred.

CONCLUSIONS Focal PACs commonly originates from ostium of coronary sinus, crystal terminalis, annulus and appendage. The radiofrequency catheter ablation yields a satisfying success rate and very low complication rate and could be the first line choice for treating focal PACs in experienced electrophysiological center.

GW27-e0688
The Effect of Atorvastatin on Late Recurrence after Catheter Ablation of Paroxysmal Atrial Fibrillation

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OBJECTIVES This study sought to investigate the effects of atorvastatin on late recurrence after catheter ablation of paroxysmal atrial fibrillation.

METHODS 120 patients with paroxysmal atrial fibrillation who underwent circumferential pulmonary vein isolation(CPVI) were randomly divided into atorvastatin group (n=60) and control group (n=60). Both groups received routine medical treatment. Atorvastatin group, the patients were administered atorvastatin for 12 months after CPVI; control group, the patients were not given statins. The late recurrence rate and atrial fibrillation load were observed by telephone follow-up, regular electrocardiogram, Holter monitoring and echocardiography. Blood sample were collected before and 3, 6, 12 months after CPVI. The inflammatory markers including high-sensitivity C-reactive protein (hs-CRP) and interleukin-6 (IL-6) were measured.

RESULTS All patients were followed up for 12 months, and the recurrence rates of atorvastatin group and control group were 13.3% and 23.3% respectively. But there was no statistical difference between the two groups (P=0.157). Compared with the control group, the atrial fibrillation load was significantly reduced in atorvastatin group (P<0.05). Before and 12 months after CPVI, there was no significant difference in left atrial diameter between the two groups (P>0.05). Compared with the control group, the levels of inflammatory factors (hs-CRP, IL-6) were significantly lower (P<0.05) in atorvastatin group.

CONCLUSIONS Atorvastatin treatment did not decrease the late recurrence in patients with paroxysmal atrial fibrillation after catheter ablation, but it can reduce the inflammatory reaction and atrial fibrillation burden.

GW27-e0767
Combination of left atrial appendage closure with catheter ablation for the treatment of atrial fibrillation

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OBJECTIVES Catheter ablation could not eliminate risks of stroke absolutely in patients with atrial fibrillation (AF). Left atrial

appendage closure (LAAC) had showed benefits in prevention of stroke in patients with AF. This study was to evaluate the safety and efficacy of combination of LAAC with catheter ablation for the treatment of AF.

METHODS Twenty-two patients (M, 13) with persistent AF were enrolled into this study, with a mean age of (78.9±4.7)y. The history of AF was (5.3±3.9)y. All the patients had a history of stroke (from transient ischemia attack to hemiplegy). While transesophageal echocardiography confirmed there were no left atrial thrombus in all the patients 72h before procedure. Circumferential pulmonary vein isolation plus roof line and mitral isthmus line ablation were performed in all the patients. After that, LAAC were performed with Lefort Closer device (Lepu, Beijing, China) in the same procedure. Oral warfarin with aspirin and clopidogrel were taken at 45 days after procedure. Then aspirin and clopidogrel were taken till 6 months. After that, oral aspirin was maintained.

RESULTS All patients had been performed catheter ablation with LAAC. With a mean duration of (10.9±3.2) months, 15 patients maintained sinus rhythm. No stroke was observed among the patients. There was no case of severe procedure related complications.

CONCLUSIONS This study showed the feasibility and efficacy of combination of LAAC with catheter ablation for the treatment of AF in patients with high risks of stroke.

GW27-e0859

The relationship between high sensitive C-reactive protein and bundle branch blocks in northern China: the Kailuan prospective study

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OBJECTIVES Few investigations were concerning the risk factors and predictors of bundle branch blocks (BBBs). C-reactive protein (CRP) has been suggested by previous studies to be a risk factor for cardiovascular diseases. This study aims to investigate possible association between CRP levels and BBBs.

METHODS We studied the relationship between high sensitive CRP (hs-CRP) and BBBs among 97,308 participants (mean years 51.78± 12.46, 77623 men) in the Kailuan study. BBBs was assessed by a standard supine resting, 10-s 12-lead ECG, and hs-CRP was measured from blood sample at baseline. The relationship between quartiles of hs-CRP and prevalence of BBBs was analyzed by using logistic regression. The association between quartiles of hs-CRP and the incident BBBs was analyzed by using Cox regression.

RESULTS After adjusting potential confounders, individuals in higher quartiles of hs-CRP level had a moderate increased likelihood of suffering from BBBs compared using the lowest quartile as the reference. The odd ratios (95% confidence interval) for BBBs of the 2nd, 3rd, 4th quartiles of hs-CRP were 1.13(1.01-1.27), 1.09(0.97-1.33), 1.18(1.05-1.32), respectively, P value for trend was 0.033. BBBs were developed in 1509 individuals during a follow-up of six years. In multivariate analysis with adjustment for potential confounders, the hazard ratios (95% confidence interval) for BBBs of the 2nd, 3rd, 4th quartiles of hs-CRP were 1.10(0.95-1.28), 0.98 (0.84-1.15), 1.21(1.04-1.40), respectively, P value for trend was 0.017.

CONCLUSIONS Higher level of hs-CRP was associated with the higher prevalence of BBBs, and the elevated hs-CRP level was independently related to the increased risk for BBBs. This indicates that the elevated hs-CRP might be a risk marker for BBBs in general population.

GW27-e0861

Association between Insomnia and Atrial Fibrillation in Chinese Population: A Cross-sectional Study

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OBJECTIVES Insomnia is the most prevalent sleep disorder and co-occurs with many health problems. Lmited evidences investigated the association between insomnia and atrial fibrillation (AF). This study aims to investigate possible association between insomnia and AF.

METHODS A total of 8371 participants (4314 men, mean age 42.4± 13.1 years) were enrolled in a cross-sectional study in China to investigate the association between insomnia and AF. AF was assessed by a standard supine resting, 10-s 12-lead ECG or a self-reported history. Insomnia was assessed using the Athens Insomnia Scale (AIS) and a

score of six or above was considered insomnia. The relationship between insomnia and AF was analyzed by using logistic regression.

RESULTS Of the 8371 participants, 1074 (12.8%) suffered from different degrees of insomnia. After adjusting for common confounders, individuals with insomnia have a moderate increased likelihood of suffering from AF compared with people who did not with insomnia (odds ratio (OR): 1.92, 95% confidence interval (CI): 1.00-3.70, p=0.050). After stratified by age, positive association was more profound in those aged< 40 years (OR: 6.52, 95%CI: 1.654-25.83, p=0.008).

CONCLUSIONS Insomnia maybe associated with a higher risk of AF in Chinese population, especially those aged< 40 years.

GW27-e0936

Assessment of the CHADS2 and CHA2DS2-VASc score in predicting thromboembolism in Chinese patients with nonvalvular atrial fibrillation: a real-world analysis

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OBJECTIVES The assessment of thromboembolic risk is important in atrial fibrillation (AF) management. The latest AHA/ACC/HRS and ESC guidelines recommended CHA2DS2-VASc score be superior to CHADS2 in assessing thromboembolic risk for patients with nonvalvular AF (NVAF), while which one is more appropriate for Chinese patients is unknown. Our objective was to compare the performance of CHADS2 and CHA2DS2-VASc score in a real world cohort of Chinese patients with NVAF.

METHODS We used data from Beijing Hospital Discharge Information System and Vital Registration Monitoring System. A total of 28871 patients with NVAF between January 2007 and December 2009 were enrolled and followed up one year. The outcome was thromboembolic events (TE) including ischemic stroke, transient ischemic attack (TIA), systemic embolism, pulmonary embolism, or acute myocardial infarction. Risk factors for TE were investigated using multivariate Cox regression analyses. The C-statistics (area under the receiver-operating-characteristic curve) were calculated to assess the discrimination of the model for the outcome. The net reclassification improvement (NRI) was calculated to quantify the improvement by a new model as compared to an old model for low-, intermediate-, and high-risk patients.

RESULTS The annual incidence of TE was 11.1 per 100 person-years and risk factors for TE were advanced age, hypertension, diabetes, and prior stroke/TIA/TE (P<0.001). C-statistics in CHADS2 and CHA2DS2-VASc score were 0.566 (95% CI: 0.555-0.577) and 0.570 (95% CI: 0.559-0.580) respectively (P<0.001); NRI was 0.059 (P<0.001) when using CHADS2 versus CHA2DS2-VASc score. Then, HA2DS-A score based on risk factors was proposed. The new score was calculated by adding 1 point each for any of the following-hypertension (H), age 65-74 years (A), diabetes (D) and a history of stroke or TIA or TE (S)-and 2 points for age 75 years or older (A2). C-statistic was 0.583 (95% CI: 0.573-0.594, P<0.001) improving significantly and a significant NRI (0.060, P<0.001) was found between HA2DS-A and CHA2DS2-VASc score.

CONCLUSIONS In Chinese NVAF patients, CHADS2 score performed better than CHA2DS2-VASc score although both had only modest predictive capacity. The HA2DS-A score may be a simpler and useful risk score for Chinese patients but further external validation is needed.

GW27-e0978

The relationship between preoperative pharmacotherapy and incident postoperative atrial fibrillation in patients undergoing isolated coronary artery bypass grafting

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OBJECTIVES Postoperative atrial fibrillation (POAF) is the most common postoperative arrhythmia in patients undergoing isolated coronary artery bypass grafting (CABG); POAF is associated with an increased morbidity and mortality. Studies of treatments to reduce the risk of POAF have yielded conflicting results. We assessed the relationship of preoperative medication with POAF in patients undergoing isolated CABG.