thromboembolism. By analyzing the correlation of transesophageal echocardiography parameters and atrial fibrillation thromboembolism risk assessment indicators (CHADS2, and CHA2DS2-VASC), a new prediction method of risk of stroke in patients with atrial fibrillation.

**Methods:** 304 patients that diagnosed with atrial fibrillation in our hospital from October 2010 to October 2012, and score to each patient according to standard of CHADS2, and CHA2DS2-VASC. Patients were divided into low, medium and high-risk groups. After admission, each patient underwent transesophageal ultrasound echocardiography, internal diameter of right ventricle, interventricular septum thickness, left ventricular internal diameter, left ventricular posterior wall, right ventricular outflow tract, aortic root (in the cross-sectional plane of aortic valve), left atrial diameter, pulmonary artery diameter, LVEF, speed of aortic valve flow and the pulmonary valve orifice flow, left ventricular ejection fraction (LVEF). We analysis correlation of ultrasound heart rate parameters and thromboembolic risk scoring by using Spearman rank.

**Results:** (1) The ultrasound indicators that has a significant correlation with CHADS2, score are: interventricular septal thickness, left ventricular posterior wall thickness, left atrial diameter, pulmonary artery diameter, right ventricular diameter, the inner diameter of the aortic root, LVEF. (2) The ultrasound indicators that has a significant correlation with CHADS2-VASC score are: Interventricular septal thickness, left ventricular hypertrophy, pulmonary artery diameter width and LVEF decreased. In addition, the internal diameter of right ventricle, aortic root diameter is associated with CHADS2 score; aortic valve flow velocity is associated with CHADS2-VASC score and CHA2DS2-VASC score. (3) The echocardiographic indexs such as thickness of interventricular septum, posterior wall, left atrial diameter, diameter of pulmonary artery, aortic valve flow rate and LVEF value may be the identification index of thromboembolism risk in non-valvular atrial fibrillation patients.

**Conclusions:** The methods have a higher accuracy and are most suitable scoring system for Chinese atrial fibrillation patients. Further research is needed to examine their true predictive value.

**GW25-e4148**

Strategy of early detection and active management of supraventricular arrhythmia with remote monitoring: The randomized, multicenter SETAM trial

**Objectives:** Atrial fibrillation (AF) is the most commonly encountered sustained cardiac arrhythmia in medical practice and it is associated with a risk of thromboembolic events or other complications, especially for asymptomatic patients who may not seek medical care. Therapy at the earliest in patients with an implantable device, the integrated home monitoring (HM) technology may provide relevant notifications for detection of supra-ventricular arrhythmias (SAV); a treatment can be initiated or optimized directly after a new onset of SAV. The French randomized, multicenter SETAM trial assessed the impact of HM on detection and treatment of SAV.

**Methods:** Patients implanted with a dual chamber pacemaker were enrolled in the study at hospital discharge if they had a sinus rhythm at enrollment, no antiarrhythmic, anticoagulant or dual-antiplatelet therapy, and if they had a CHADS2-VASc score for stroke risk of 2 or more. The patients were randomly assigned to an HM group (61 patients) or a usual care group (62 patients). The primary criteria was the comparison of the time from enrollment to the first SAV-related intervention between the groups.

**Results:** A total of 395 patients in 58 centers (mean age=79.2±8.0 y.o, 63% male, mean CHADS2-VASc score=3.7±1.2) were followed during 12.8±3.3 mo. There was no difference in the baseline clinical characteristics between the groups. The most prevalent co-morbidities were hypertension (82% patients), diabetes (29%) and vascular disease (24%). Implantation indications were atrio-ventricular block in 43%, atrial fibrillation in 36%, and the remaining 21% were others. The global SAV incidence was 25% (29% in the active group vs 22% in the control group, P=0.05). A therapy (drugs or ablation) was instituted for 49/291 patients (17%) in the active group vs 43/304 patients (14%) in the control group (P=0.01). The median time from enrollment to the first therapy for SAV was 114 [44; 241] days in the active group vs 224 [67; 366] days in the control group, representing a median gain of 110-days in SVA management (50% reduction, P=0.01). Over these 92 patients, 54 had AF (50%) and 38 had flutter or atrial tachyarrhythmia (41%). Anticoagulation was initiated in 80% of patients and antiarrhythmic drugs in 55%. In the active group, 93% of the notifications transmitted by HM were appropriate for SVA detection. The remaining 7% were inappropriate for SVA (over-sensing, noise or non-sustained VT).

**Conclusions:** The SETAM study demonstrated that HM allows earlier detection and treatment of SVA in patients implanted with pacemakers. It suggests that HM could be expanded to a maximum of patients in daily clinical practice in order to optimize their SVA management. The next step is to report how early detection of SVA with HM can possibly improve the patients clinical outcome.

**GW25-e4295**

Efficacy of microRNA423-5p and BNP detection on evaluation of cardiac dysfunction after cardiac pacing

**Objectives:** The aim of this study was to evaluate the relationship of the CHADS2, and CHA2DS2-VASC scores with left atrial (LA) thrombus detected by transesophageal echocardiographic and to compare these two risk stratification schemes with respect to their ability to predict LA thrombus in Chinese patients with nonvalvular atrial fibrillation.

**Methods:** Transesophageal echocardiograms of 2112 patients (mean age 57.5±11.8 years, 72% female) with 1750 paroxysmal AF with nonvalvular atrial fibrillation were retrospectively reviewed for LA thrombus. The patients’ CHADS2, and CHA2DS2-VASC risk scores and categories were also calculated.

**Results:** Transesophageal echocardiography revealed LA thrombi in 69 (3.3%) patients. Using CHADS2, LA thrombus was found in 2.5% of the low-risk group, 3.7% of the intermediate-risk group and 4.1% of the high-risk group (P=0.03). Using CHA2DS2-VASC, LA thrombus was found in 1.8% of the low-risk group, 3.5% of the intermediate-risk group and 4.0% of the high-risk group (P=0.06). The frequency of patients with LA thrombi fell into the low-intermediate-risk group classified based on the CHADS2 and CHA2DS2-VASC score.

**Conclusions:** Both CHADS2-VASC and CHADS2 scores may have limited value for detecting LA thrombi in patients with nonvalvular atrial fibrillation.

**GW25-e2219**

Evaluation of the embolism risk score systems in patients with atrial fibrillation

**Objectives:** To determine the correlation of the echocardiographic risk assessment of CHADS2, and CHA2DS2-VASC score with CHADS2 and CHA2DS2-VASc score, and to evaluate the predictive power of different scoring system to identify the suitable scoring system for Chinese atrial fibrillation patients.

**Methods:** 425 consecutive patients treated in our hospital with paroxysmal or persistent atrial fibrillation are selected. The clinical data, such as gender, age, blood pressure (BP), blood lipids, LVEF, history of smoking, embolism, heart failure (HF), diabetes mellitus (DM), coronary heart disease (CHD), hypertrophic cardiomyopathy, valvular heart disease (VHD), myocardial infarction (MI), peripheral arterial disease (PAD), large aortic plaque, are collected for each patient. Telephone follow-up are done for each patient, the patients with definitive stroke are defined as stroke positive group.

**Results:** The statistical results were: CHADS2 score: 54.3±14.1, CHA2DS2-VASC score: 52.5±14.1, CHADS2-VASc score: 51.8±14.1. The correlation coefficient of CHADS2 score and CHA2DS2-VASc score (Az=0.902, <0.01) was significantly higher than that of CHADS2 score and CHA2DS2-VASC score (Az=0.886, <0.01). The correlation coefficient of CHADS2 score and CHA2DS2-VASC score (Az=0.917, <0.01) was significantly higher than that of CHA2DS2-VASC score and CHA2DS2-VASC score (Az=0.886, <0.01). The correlation coefficient of CHADS2 score and CHA2DS2-VASC score (Az=0.926, <0.01) was significantly higher than that of CHA2DS2-VASC score and CHA2DS2-VASC score (Az=0.886, <0.01). The correlation coefficient of CHADS2 score and CHA2DS2-VASC score (Az=0.926, <0.01) was significantly higher than that of CHA2DS2-VASC score and CHA2DS2-VASC score (Az=0.886, <0.01).

**Conclusions:** The CHADS2 and CHA2DS2-VASC score have a higher accuracy and are most suitable scoring system for Chinese atrial fibrillation patients.