coronary heart disease and hypertension, heart function, no prescription of ACEI/ARB, the size of LA before pacemaker implantation, pacing mode and SSS were significant variables (P<0.05). Gender, age, history of smoking and drinking, diabetes, dyslipidemia, and prescription of statin were not significant variables in this study. Multivariate logistic regression analysis showed that coronary heart disease, hypertension, and no prescription of ACEI/ARB remained significant.

CONCLUSIONS The rapid atrial arhythmias had a higher incidence after pacemaker implantation, especially AF, consistent with the domestic research results, lower than the foreign research results. Coronary heart disease, hypertension, and no prescription of ACEI/ARB remained significant variables in multivariate logistic regression analysis showed that coronary heart disease, hypertension, and no prescription of ACEI/ARB were associated with the new onset RAT patients with permanent pacemakers, especially coronary heart disease, hypertension, and no prescription of ACEI/ARB.

GW26-e2246
Atrial Fibrillation and Endothelial Dysfunction—Review
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OBJECTIVES Atrial fibrillation (AF) is the most common sustained arrhythmia associated with increased risk of stroke and systemic embolism. There is plausible evidence linking AF to endothelial dysfunction. Proposed mechanisms of endothelial damage / dysfunction in AF include inflammation, oxidative stress, renal angiotensin system activation and decreased shear stress. The present review aims to provide an update on the relationship of AF and endothelial damage / dysfunction.

METHODS PubMed and EMBase database between April 1999 and March 2015 has been searched with the following terms in combination or individually: “atrial fibrillation”, “endothelial dysfunction”, “endothelial activation”, “endothelial damage”, “ADMA”, “von Willebrand factor”, “thrombomodulin”, “FMDF”, “RHI”, “E-selectin”, “nitric oxide release “oxidative stress”, “inflammation” and “renal-angiotensin system”. We also reviewed references from relevant articles.

RESULTS 1) Endothelial dysfunction is almost universal in AF. Various of biomarkers and accessory examinations are applied in evaluation of endothelial function in clinical and basic researches, such as von-willebrand factor, thrombomodulin, flow mediated dilation and asymmetric dihydrlarginine. But the results are quiet different because of inconsistent inclusion criteria and measurement methods.

2) Some endothelial dysfunction biomarkers can even forecast cardiovascular event in AF, especially stroke and systemic embolism. These biomarkers might applied to risk classification in the future.

3) Inflammatory, oxidative stress, neurohormonal system activation and abnormal hemodynamics may participate the pathology process of endothelial dysfunction in AF. Administration of antioxidant, anti-inflammation agent and ACEI/ARBs can be useful in endothelial function protection.

CONCLUSIONS All types of AF have intimate relationship with endothelial dysfunction. Intervention focused on pathophysiology mechanisms in AF can be promising way to alleviate endothelial function and improve prognosis of AF. In clinical practice, there is no standard evaluation method of endothelial function. Given the important role of endothelial function in cardiovascular disease, especially AF, large scale researches on this issue are needed.

GW26-e1576
The Association between Frequent Premature Ventricular Contractions and the Left Ventricular Function of Late Pregnant Women
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OBJECTIVES Frequent premature ventricular contractions (PVCs) are frequently present during pregnancy. However, whether frequent PVCs impair the left ventricular function of late pregnant women is unclear. In this study, it was aimed to investigate the association between frequent PVCs and the left ventricular function of late pregnant women.

METHODS Seventy-two late pregnant women (32.4±1.7 weeks) with frequent PVCs evaluated by ambulatory ECG (10548±3674 beats/24h on average) were enrolled, while sixty-five late pregnant women (32.7±2.1 weeks) without PVCs were also included as control. All subjects received two-dimensional echocardiography for evaluation of the left ventricular ejection fraction (LVEF), left ventricular end-diastolic dimension (LVEDD), left ventricular posterior wall thickness in diastole (LVPWT), and interventricular septum thickness in diastole (IVST).

RESULTS There were significant differences in LVEF between PVCs group and non-PVCs group (52.4%±3.8% vs. 60.7%±4.3%, p=0.024). However, there were no statistical differences in LVEDD, LVPWT and IVST between two groups. Pearson correlation analysis indicated that the number of PVCs evaluated by 24h ambulatory ECGs was positively correlated with LVEF (r = 0.376; p = 0.042), while no correlation was showed between the number of PVCs and the left ventricular structure (LVEDD, LVPWT and IVST).

CONCLUSIONS Frequent PVCs may impair the LVEF of late pregnant women. The relationship of PVCs and the pregnancy outcome should be evaluated in the future.