Conclusions  The SKB technique is safety and efficacy for the special ostial LAD lesions, long-term follow-up and large volume patients study is needed to verify the initial results.

**e0356  THE RESEARCH ON CALCIUM HOMEOSTASIS EXPRESSION AND GENE TRANSCRIPTION OF ATRIAL MYOCYTES IN PATIENTS WITH ATRIAL FIBRILLATION**

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Objective  Inquire into the molecular biological mechanism of the occurrence and maintenance of atrial fibrillation (AF) by researching adjustment and control of the L type the passage and muscles sarcoplasmic reticulum (SR) Ca²⁺- the ATPase expression by main calcium ion (Ca²⁺) of AF and the sinus rhythm.

Methods  We took 200 mg right auricle tissues and (or) left atrium tissues from each of the 63 patients undergoing cardiac surgery (including three groups: chronic AF, paroxysmal AF and sinus rhythm), extracted the protein and measured the density of overall sample protein, using Western-blot method to analyse the expression level of atria muscle L-type Ca²⁺ Passage and SR Ca²⁺-the ATPase. Isolated the total RNA of the artria muscle tissue by Trizol Method, measured the expression amount of atria muscle L-type Ca²⁺/GAPDH protein and SR Ca²⁺-ATPase/GAPDH protein in paroxysmal AF group decreased with no statistical significance. Compared with sinus rhythm group, the ratio of L-type Ca²⁺/GAPDH protein and SR Ca²⁺-ATPase/GAPDH protein than the group of sinus rhythm both in left atrium and right atrium with statistical differences.

Results  Firstly, left atrial diameter was obviously higher in patients with chronic AF or paroxysmal AF than in patients with sinus rhythm. Secondly, the patients with chronic AF have lower ratio of L-type Ca²⁺/GAPDH protein and SR Ca²⁺-ATPase/GAPDH protein than the group of sinus rhythm both in left atrium and right atrium with significant difference. Compared with sinus rhythm group, ratio of L-type Ca²⁺/GAPDH protein and SR Ca²⁺-ATPase/GAPDH protein in paroxysmal AF group decreased with no statistical significance. 3. Level of L-type Ca²⁺ and SR Ca²⁺-ATPase mRNA of the chronic AF group declined than sinus rhythm group both in left and right atrium with statistical differences.

Conclusion  L-type calcium channel and SR Ca²⁺ -ATPase mRNA and the amount of protein changed significantly in the patients with chronic AF and not significantly in paroxysmal AF group. There was statistical significance between left and right atrium.

**e0357  DIAGNOSTIC VALUE ADENOSINE STRESS ⁹⁹mTc-MIBI GATED MYOCARDIAL PERFUSION IMAGING IMAGING FOR CORONARY ARTERY DISEASE**

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Objective  Stress ⁹⁹mTc-MIBI myocardial perfusion imaging (MPI) be useful in evaluating myocardial ischemia and judging coronary artery stenosis. The purpose of this study was to evaluate the sensitivity, specificity and accuracy of adenosine stress ⁹⁹mTc-MIBI gated myocardial perfusion SPECT (G-MPI) for the diagnosis of coronary artery disease (CAD).

Materials and methods  The subjects were 46 patients diagnosed or suspected CAD, including forty with angina, six with old myocardial infarction. Adenosine stress G-MPI were performed 90 min after injection of adenosine, and resting G-MPI performed in same day. All patients underwent coronary artery angiography within two weeks. Significant stenosis was defined when the coronary artery intraluminal stenosis ≥50%. Analyse the imaging and calculate the sensitivity, specificity and accuracy of adenosine stress G-MPI in diagnosing CAD and judging coronary artery stenosis. Do correlation analysis of left ventricular systolic function (left ventricular ejection fraction) between adenosine stress ⁹⁹mTc-MIBI G-MPI and echocardiography.

Results  The sensitivity, specificity, accuracy, positive predictive value and negative predictive value of adenosine stress ⁹⁹mTc-MI G-MPI for the diagnosis of CAD were 87.0%, 85.7%, 86.6%, 93.8%, and 72.7% respectively. The sensitivity, specificity and accuracy for the diagnosis of LAD, LCX and RCA stenosis were 88.2%, 90.9%, 88.9%; 78.6%, 83.3%, 80.0%; 90.5%, 81.8%, 87.5% respectively. LVEF-G-MPI correlated with LVEF-UCG significantly, with correlation coefficient of 0.855 (R=0.0001).

Conclusions  In conclusion, stress adenosine ⁹⁹mTc-MIBI G-MPI have provided better sensitivity, specificity and accuracy in the diagnosis of CAD, and is probably an accurate method for detecting coronary artery stenosis. It can be used in evaluating left ventricular function, especially for patients unsuited in the exercise MPI.

**e0358  PROFIBROTIC INFLUENCE OF HIGH GLUCOSE ON HUMAN CARDIAC FIBROBLAST FUNCTIONS**

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Aims  Recent studies have demonstrated an important role of chronic high glucose concentration for collagen deposition in fibroblasts. However, little is known about the action of angiotensin II type 1 receptor blocker and inflammatory cytokines on ACE inhibitor on matrix metalloproteinase (MMP) regulation and collagen synthesis in human cardiac fibroblasts. In this article, we determined the influence of chronic high glucose concentration on human cardiac fibroblasts functions and the effects of 606A and imidaprilat in these responses.

Methods and results  Human cardiac fibroblasts were long-time exposure in normal or high glucose media in the absence or presence of 606A or imidaprilat. We have determined their MMP-2 activities by using in-gel zymography. In addition, the collagen IV synthesis was evaluated by the means of ELISA. Results show that chronic high glucose concentration inhibits the activity of MMP-2 and accelerates collagen IV synthesis. When Equimolar mannitol was used as an osmotic control, the activity inhibition of MMP-2 were also observed, however, it is not as strong as that by using high glucose. Inhibition of MMP-2 activity and enhancement of collagen IV synthesis were reserved incompletely by 606A. But complete reservation of MMP-2 activity and collagen IV synthesis was observed by using imidaprilat in cultured media in the experiments.

Conclusions  Chronic high glucose inhibits the activity of MMP-2 and increases collagen IV synthesis by means of regulating MMP-2 mRNA expression in human cardiac fibroblasts through osmotic and non-osmotic pathways. Inhibition of MMP-2 activity and enhancement of collagen IV synthesis were reserved incompletely by 606A. But complete reservation of MMP-2 activity and collagen IV synthesis was observed by using imidaprilat in cultured media in the experiments.