

thickness were significantly larger in 116 patients with RCM than in normal subjects ($p < 0.05$). However, there were no statistical differences between the two groups in left ventricular diastolic diameter (LVDD). Visual observation showed that mild mitral regurgitation (43%), moderate mitral regurgitation (21%), mild tricuspid regurgitation (28%) and severe tricuspid regurgitation (40%) were noted, respectively. 35 RCM with DE was further divided into diffuse and segmental enhancement. RCM with diffuse delayed enhancement was 15 cases, of which 12 cases showed powdery enhancement, and three showed petaline enhancement. Three cases with powdery enhancement were histologically proven as myocardial amyloidosis. RCM with segmental enhancement was 20 cases. Ventricular septum was the most vulnerable segment. Six cases presented subendocardial enhancement that corresponded to apical obliteration, of which one case was confirmed as hyper-eosinophilia with use of marrow examination. The other 14 cases didn't present any regular enhancement. 81 RCM without DE, of which histologically proven non-specific findings were in two cases, had marked bi-atrial dilation, near-normal ventricular chambers and near-normal ventricular thickness.

Conclusions MRI is an excellent imaging modality to identify restrictive cardiomyopathy. Primary RCM presents marked bi-atrial dilation with nonhypertrophied and nondilated ventricles. Diffuse left ventricular thickening associated with powdery enhancement indicates myocardial amyloidosis. Apical obliteration associated with subendocardial enhancement corresponds to endomyocardial fibrosis.

e0234 THE EFFECT OF LUTEOLIN ON H₂O₂-INDUCED VASCULAR SMOOTH MUSCLE CELL PROLIFERATION AND MIGRATION

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VSMCs Migration and proliferation are the critical pathological processes of various cardiovascular disease, such as atherosclerosis. Luteolin is a kind of flavonoids naturally occurring in many vegetables, fruits and medical plant. In this study, we investigated the effect of luteolin on the proliferation and migration of rat vascular smooth muscle cells (VSMCs) which were stimulated by H₂O₂, and a primary discussion was given to its mechanism of action. The present study demonstrated that Luteolin (12.5 to 50 μM) showed a particularly concentration-dependent inhibition effect on H₂O₂-elicited VSMCs proliferation and migration by MTT and Transwell assay respectively. In further research, we originally explored the function of Luteolin in blocking H₂O₂-triggered Src and Akt signalling pathways. The activation of Src, PDK1, Akt (308), Akt (473) of Luteolin group was significant lower than that of H₂O₂ group. These findings strongly suggested that Luteolin suppressed H₂O₂-directed migration and proliferation in VSMCs by inactivating Src and Akt pathways which participate in VSMCs migration and proliferation.

e0235 STUDY ON THE PRIMARY AND SECONDARY PROTEIN STRUCTURE OF ISCHAEMIA MODIFIED ALBUMIN

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Objective Ischaemia-modified albumin (IMA) has been demonstrated to be a biomarker of ischaemia associated with myocardial and skeletal muscle ischaemia, pulmonary embolism and stroke. However there is limited information on the formation mechanism

of IMA. The aim of the study was to investigate the primary and secondary protein structure of IMA.

Methods This study included 29 acute coronary patients (IMA level > 0.8 absorbance units) and 22 healthy controls (IMA level < 0.5 absorbance units). Serum IMA was purified by salting out and ion exchange chromatography. We also chose 21 human albumin standard. The structures of purified protein and albumin standard were analysed by mass spectrometry, N-terminal sequencings and circular dichroism (CD) spectra measurement.

Results Protein sequences showed that the first 10 N-terminal amino acid residues of IMA were identical with those of albumin in healthy persons. The result of CD spectra measurement revealed that the average percentages of α -helixes and random coil decreased and the average percentages of β -turn and β pleated sheets increased a bit in ACS patients, but there is no significant difference between groups.

Conclusion Compared with the normal human albumin, no changes take place in the N-terminal protein sequence of IMA, and the secondary structure of IMA was also not significantly changed. Increasing percentage of β -turn and β pleated sheets in IMA may correlate with its formation mechanism.

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e0236 A REPERFUSION MODEL IN AMI RABBITS

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Objective To Explore the feasibility of establishing the reperfusion model on AMI rabbit by the method of obstructing and releasing the Left Anterior Ventricular Branch (LAVB) of left circumflex coronary artery (LCX).

Methods A total of 24 healthy Japanese albino rabbits of both sex were used in this study. Rabbits were randomly divided into 3 groups: ischaemia-reperfusion group (IR group, 8), ischaemia-noperfusion group (AMI group, 8), sham group (sham, 8). After preconditioning the myocardium twice by obstructing the blood flow for 5 min, we obstructed the flow of LAVB in IR group for 60 min, and then released it to be reperfusion. In AMI group we obstructed the flow permanently by ligating LAVB. And in sham group we only threaded but did not obstruct the flow. Then we killed them 3 days later. Venous blood was gathered. The levels of cTNI, CK and CK-MB were assayed at pre-reperfusion (baseline) and post-reperfusion period (4-h, 8-h, 12-h, 24-h, 48-h and 72-h after being reperfusion). The summation changes of ST segment elevation were observed in leads II, III, avF by ECG. Histopathology of myocardia, Evan's Blue and TTC dyeing were taken into notice. STATA8.0 software pack was used for data analysis.

Results The results come out that the ST segment all elevated in each group after LAVB was obstructed. In IR group the ST segment lowered more than 50% within 120 min after releasing the artery. This phenomenon had not appeared in other two groups. Compared to baseline, the cTNI, CK and CK-MB were all raised in IR group, and the peak value antedisplaced to 8 h, 12 h and 10 h. These three factors were all raised but no antedisplacement of the enzyme peak in AMI group. In sham group the raising of the three factors was slight, and no antedisplacement of the enzyme peak either. The experiment of rabbits in IR and AMI groups were consistent with the AMI diagnostic criteria in AMI Guideline of diagnosis and therapy established by Cardiac Disease branch of Chinese Medical