

those of controls, $p < 0.05$. The expression of IL-23 protein were also higher than those of controls, which in concordance with the changes of mRNA.

Conclusions Our data show that local significantly increased levels of IL-23p19mRNA in myocardium and IL-23 may play a role in the pathogenesis of mice virus myocarditis.

e0217 STUDY ON THE PROTECTIVE EFFECT OF THE MIXTURE OF SHENGMAI PULVIS AND DANSHEN DECOCTION ON THE MYOCARDIUM OF TYPE 2 DIABETIC CARDIOMYOPATHY IN RATS MODELS

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Objective To study the effect of the Mixture of Shengmai Pulvis and Danshen Decoction in protecting rats of the type 2 diabetic cardiomyopathy (DCM) model.

Methods 42 SD rat models of DCM, established by combination of insulin resistance by a high-fat diet with intraperitoneal injection of high dose streptozotocin (50 mg/kg), were evaluated in the damage of the myocardium by ECG at the twelfth week after modelling, and the serum are analysed for blood glucose (GLU), cholesterol and triglyceride (TG); the content of the left cardiac ventricle myocardial collagen was quantified by Masson staining test; the level of myocardial cell apoptosis was tested with Tunel apoptosis kit; the damage extent of the myocardial subcellular structure was observed by electron microscopy; the expression levels of cardiac TSP-1, TGF- β 1 and TRB-3 proteins were detected by immunohistochemistry, the changes of the expression levels of the cardiac TSP-1, A-TGF β 1 and L-TGF- β 1 protein were detected by Western blotting; and the changes of the mRNA expression levels of TSP-1 and TRB-3 were detected by real-time quantitative PCR.

Results Compared with the control group, the rat blood glucose, cholesterol, triglycerides were significantly decreased; the myocardial tissue was less damaged and the collagen fibre content was reduced in the group of the Mixture of Shengmai Pulvis and Danshen Decoction; The myocardial sub-cellular structural damage in electron microscopy was to a lesser extent, the expression levels of the myocardial TSP-1, TGF- β 1 and TRB-3 by immunohistochemical detection and the average expression levels of the myocardial TSP-1, A-TGF β 1 and L-TGF- β 1 by Western blotting were decreased; and the expression levels of TSP-1mRNA and TRB-3 mRNA by PCR detection were decreased than those of the control group.

Conclusion The Mixture of Shengmai Pulvis and Danshen Decoction can inhibit through multiple pathways the process of myocardial fibrosis in the rat myocardium of diabetic cardiomyopathy, and significantly delay the formation course of diabetic cardiomyopathy in hyperglycemia rats.

e0218 BIOLOGICAL CHARACTERISTICS RESEARCH OF STENT COATING WITH ZEDORAY CONSTITUENTS IN A PORCINE MODEL

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Background In-stent restenosis is caused by neointimal hyperplasia, which involves abnormal growth of vascular smooth muscle cells

(VSMC). Zedoray constituents is known to inhibit smooth muscle cell hyperplasia and migration, while inhibit ADP induced platelet aggregation.

Objective To evaluate the biological characteristics of stents coating with zedoray constituents in porcine coronary model.

Methods Bare metal stents (BMS, n=36), Sirolimus eluting stents (SES, n=36) and Zedoray eluting stents (ZES, n=36) were implanted in the proximal segment of three different epicardial coronary arteries in 36 swines randomly. Coronary angiography, optical coherence tomography (OCT) and histomorphologic analysis were performed at 30 days and 90 days after the procedure.

Results The 30 day (n=24) OCT examination showed ZES arm has larger lumen diameter (LD), acceptable mean lumen stenosis of area (MSA) compared with BMS (LD: ZES 1.9 ± 0.51 mm, SES 1.85 ± 0.41 mm, BMS 1.1 ± 0.3 mm, $p < 0.05$; MSA%: ZES 21.7 ± 19.3 , SES 23.2 ± 18.9 BMS 41.7 ± 21.3 , $p < 0.001$). By histomorphometric analysis, similar injury scores were observed at the three arms ($p > 0.05$). However, significant inflammation score reduction was seen in ZES group (ZES: 0.65 ± 0.54 , SES: 1.03 ± 0.44 , BMS: 0.94 ± 0.75 , $p < 0.001$) compared to other two groups at 30 day, no differences in three groups at 90 day. Either at 30 day or 90 day, by qualitative analysis, well developed endothelium was seen in ZES arm, while impaired endothelium was observed with part of stent strut naked at vessel lumen at SES arm.

Conclusion Zedoray eluting stents can reduce neointimal hyperplasia with good endothelia coverage in porcine coronary model.

e0219 STUDY ON THE ROLE OF CD4+CD25+TREG ON ATHEROSCLEROSIS IN APOE-/- MICE

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Objective To investigate the mechanism of CD4⁺CD25⁺treg in atherosclerosis in ApoE^{-/-} mice.

Methods 28 weeks-old male ApoE^{-/-} mice were randomly divided into two groups feeding high-fat diet (AH) or normal diet (AN). Ten C57BL/6J male mice feeding normal-diet (BN). After 12 weeks, the whole aorta from the root to crotch of iliac artery was separated and the whole blood were centrifugated to get the serum. Paraffin sections of aorta were stained with H&E and morphometric parameters were measured using Image Pro Plus 6.0 system. Immunohistochemical stain was performed to verify the expression of the Foxp3⁺ and CD25⁺ cells in atherosclerotic tissue (%). The ratio of CD4⁺CD25⁺/CD4⁺ in spleen was calculated by Flow Cytometry. The serum concentration of TGF- β 1, IL-10 were detected by ELISA. SPSS13.0 was used to analyse the data. All values were expressed as Mean \pm SD. Independent-Samples T Test was applied to compare two samples of quantitative data after testing their normality. $p < 0.05$ was considered statistically significant.

Results There were advanced atherosclerotic plaques in ApoE^{-/-} mice, but in C57BL/6J. The thickness of intima (μ m), plaque area (μ m²), plaque/lumen ratio in AN group were significantly higher than in BN group (12.24 ± 1.34 vs 7.33 ± 2.23 , 600265.4 ± 263876.25 vs 0 , 15.93 ± 5.45 vs 0 , all $p < 0.01$). So did in AH group than that in AN group (all $p < 0.05$). The percentage of splenic CD4⁺CD25⁺treg (%) and the serum concentration of TGF- β 1, IL-10(pg/ml) in AN group were significantly decreased than in BN group (9.4 ± 4.00 vs 13.8 ± 3.97 , 116.05 ± 32.27 vs 191.27 ± 95.27 , 41.83 ± 16.15 vs 61.84 ± 23.05 , all $p < 0.05$). These in AH group significantly reduced than in AN group (5.8 ± 1.51 vs 9.4 ± 4.00 , 83.97 ± 33.45 vs 116.05 ± 32.27 , 27.50 ± 11.54 vs 41.83 ± 16.15 , all $p < 0.05$). There were no Foxp3⁺ and CD25⁺ cells in plaques-free intima in BN group. The expression of Foxp3, CD25⁺ cells were significantly decreased in AH group than in AN group (1.28 ± 1.20 vs 3.04 ± 1.92 , 2.00 ± 1.39 vs 3.98 ± 1.67 , all $p < 0.05$).