SIRT1 gene transfected H9c2 rat, so as to clarify the gene target and possible mechanism of xuefu decotion (XFZY) for ischemic myocardial disease (IHD) under the TCM theory of eliminating blood stasis and promoting tissue regeneration.

**METHODS**

H9c2 rat myocardial cells were divided into six groups: the blank control group, the OGD model group, the SIRT1 gene transfected group, the OGD+SIRT1 gene transfected group, the OGD+XFZY treated group, and the OGD+SIRT1 gene transfected+ XFZY treated group. After the gene transfection with SIRT1 and intervention using XFZY, the FOXO family mRNA and protein expression were detected by Reverse Transcription Polymerase Chain Reaction (RT-PCR) and Western-blots, respectively.

**RESULTS**

Compared with the blank control group, the SIRT1 mRNA and protein expression significantly decreased in the OGD model group, the SIRT1 transfected group, the OGD+SIRT1 transfected group, the OGD+XFZY treated group, and the OGD+SIRT1 transfected+XFZY treated group. Among all the comparisons, there was the least difference between the OGD+SIRT1 transfected group and the blank control group, there was the biggest difference between the OGD+SIRT1 transfected+XFZY treated group and the blank control. The were significant differences of FOXO1, FOXO3 and FOXO4 mRNA and protein expression among six groups (p < 0.05). The FOXO1, FOXO3 and FOXO4 mRNA and protein expression were all decreased in the OGD model group, the SIRT1 transfected group, the OGD+SIRT1 transfected group, the OGD+XFZY treated group, and the OGD+SIRT1 transfected+XFZY treated group, and the OGD+SIRT1 transfection + XFZY treated group were significantly higher than that in the blank control group.

**CONCLUSIONS**

This study found that SIRT1 signal pathway has a significant protective effect against myocardial cell apoptosis by modulating its substrates and downstream genes' function. This study provide some ideas for cardiac regeneration medicine research.

**GW26-e2931**

The Preliminary Study of the Significance of MPO and VPO1 Levels in Different Types of Pleural Effusions or Pericardial Effusions

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**OBJECTIVES**

Pleural and pericardial effusions are common clinical complications. The Light’s criteria, the currently used gold standard for discrimination of exudate and transudate effusions, are barely satisfactory. It is observed MPO could serve as an effective marker to differentiate infectious from non-infectious pleural effusions. The recently discovered VPO1 from cardiovascular tissues can be secreted into extracellular space or plasma, and was detected in pleural effusions and pericardial effusions in our previous research. This study aims to investigate the diagnostic significance and potential mechanisms of MPO and VPO1 levels in different types of pleural effusions and pericardial effusions.

**METHODS**

MPO and VPO1 levels in pleural or pericardial effusions were measured in 101 patients via ELISA and western blotting, respectively. Subjects were divided into 3 groups: benign exudate group, malignant exudate group and transudate group. MPO and VPO1 levels of 3 groups were compared; furthermore, the relationships among MPO, VPO1, levels, biochemical inflammatory markers, and oxidative stress index were also analyzed. ROC curves were constructed to evaluate the diagnostic performance of MPO and VPO1.

**RESULTS**

1. The medians of MPO concentrations in benign exudate, malignant exudate and transudate were 120.82 ng/mL, 105.10 ng/mL, and 25.69 ng/mL, respectively, which were significantly different (p < 0.001). Furthermore, the differences of MPO concentration distribution between benign or malignant exudate and transudate were both significant (p < 0.001).

2. The means of VPO1 concentrations in benign exudate, malignant exudate and transudate were 46.90±33.73 ng/mL, 26.92±121.09 ng/mL, and 33.40±21.46 ng/mL, respectively. The differences were significant among the 3 groups (p > 0.009).

3. MPO, but not VPO1 concentrations was correlated with inflammatory markers (IL-18, IL-6, TNF-α and C-reactive protein), as well as biochemical parameters (TP, ALB, ADA, sTP and sLDH).

4. Effusion MPO concentrations over 41.69 ng/mL diagnosed exudate with a sensitivity of 84.5% and a specificity of 82.8%, the ROC area under the curve (AUC) for MPO was 0.867 (p < 0.001, 95% CI: 0.781–0.954), which indicated a medium diagnostic accuracy.

5. Effusion MPO concentrations over 43.38 ng/mL diagnosed benign exudate with a sensitivity of 93.8% and a specificity of 58.2%, the AUC for MPO was 0.761 (p < 0.001, 95% CI: 0.659–0.863), which indicated a medium diagnostic accuracy; Effusion VPO1 concentrations over 41.47 ng/mL diagnosed benign exudate with a sensitivity of 54.1% and a specificity of 78.1%, the AUC for VPO1 was 0.644 (p < 0.017, 95% CI: 0.526–0.761), which indicated a low diagnostic accuracy.

**CONCLUSIONS**

1. MPO plays a vital role in the process of inflammation in infectious effusions. VPO1, on the other hand, may involve in the formation of the extracellular matrix.

2. Effusion MPO levels have certain diagnostic value to distinguish exudate from transudate, as well as to identify infectious and non-infectious effusions.

**GW26-e3883**

Analysis of the blood culture results

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**OBJECTIVES**

To analyze drug resistance and the distribution of bacteria in our hospital blood culture, and the positive rate and