

4. The activity of complex were least and in control group was most ( $p < 0.01$ ).
5. DNA ladders were emerge in model group and hypoxia+Sal (50  $\mu\text{g/ml}$ ) group. On the contrary, there were little DNA ladders in control group and hypoxia+Sal (100  $\mu\text{g/ml}$ ) group.
6. Observed cells under microscope, there were too much apoptosis cells in model group compared with control group ( $p < 0.01$ ).
7. The content of ND4 protein in model group was least and in control group was most ( $p < 0.01$ ).

**Conclusions** Complex I is the most important coenzymes of the respiratory chain of mitochondrial. ND4 protein is the most important subunit of complex I. Evidence shows that the lack of ND4 protein could make the activity of complex I lost completely. In this study, the content of ND4 protein was increased in hypoxia +Sal groups. It suggest that Sal could protect the myocardial cells in hypoxia by increase the content of ND4 protein.

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#### THE EFFECTION OF SALIDROSIDE ON ND4 PROTEIN IN MYOCARDIAL IN HYPOXIA

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**Objectives** Observe the effection of Salidroside (Sal) to the hypoxia myocardial cells and study the mechanism about ND4 protein

**Methods** Get the hearts out of 20 healthy rats that bore in 24 h. Digest the hearts with trypase and obtain myocardial cells in vitro. Culture cells in 6 and 96 wells plates. Start the experiment when the cells spread and contact with each others. The cells were divide into four groups, control group, model group, hypoxia+Sal (50  $\mu\text{g/ml}$ ) and hypoxia+Sal (100  $\mu\text{g/ml}$ ). The mode established with GENbox anaer, Anaero Pack and low glucose culture medium free FBS. The indexes determined were cellular morphology, vitality of cells, LDH of liquid supernatant, activity of complex I, the change of DNA and cell nucleus, the content of ND4 protein.

#### Results

1. Compared with control group, hypoxia+Sal (100  $\mu\text{g/ml}$ ) group have few apoptosis cells ( $p > 0.05$ ) and the apoptosis cells were most in model group ( $p < 0.01$ );
2. Result of MTT show that the cell's activity in model group were lower than control group cells ( $p < 0.01$ ). The level of myocardial rose up after adding Sal with different content.
3. The level of LDH in model group rose up observably compared with control group ( $p < 0.01$ ), the level of LDH descend after adding Sal with different content.