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THE EFFECT OF XINFUKANG ORAL LIQUID ON THE EXPRESSION OF ND4 IN RAT'S MYOCADIAL CELL IN THE CHRONIC HEART FAILURE

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Objective To investigate the effect of Xinfukang Oral Liquid on the expression of ND4 mRNA and Protein of myocardial mitochondria in pressure overload-induced left ventricular hypertrophy rats.

Methods Totally, 240 SD rats were randomly divided into three groups, sham operation group (SH) (n=80), coarctation of abdominal aorta model group (CAA) (n=80) and model and Xinfukang liquid treatment group (XFK) (n=80). Congestive Heart Failure rat models were made by partly coarctating the abdominal aorta of rats. Expression of ND4 mRNA and protein were observed at the fourth, eighth and 12th week after the treatment, respectively by RT-PCR and Western Blotting.

Results In CAA group at the eighth week after operation, the content of ND4 mRNA and ND4 protein were both decreased compared with SH group ($p<0.01$); content of ND4 mRNA ($p<0.01$) and ND4 protein ($p<0.05$) in XFK group were increased compared with CAA group. And these changes were far more significant at 12 weeks.

Conclusion XFK oral liquid can upregulate expression of ND4 mRNA and ND4 protein in myocardial mitochondria of pressure overload rats and improve Myocardial energy metabolism.