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EFFECTS OF LOW DECIBEL INFRASOUND ON CARDIAC FIBROSIS OF RATS WITH ACUTE MYOCARDIAL INFARCTION AND UNDERLYING MECHANISM

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Objectives To observe the changes of cardiac fibrosis and its underlying mechanism after acute myocardial infarction in rats.

Methods Thirty male Sprague Dawley (SD) rats were randomised to control group, infarction group and infrasound treatment group, with 10 rats in each group. The rats in the infrasound treatment group were treated with infrasound for 7 days, 0.5 h, 2/days. The collagen expression of rat myocardium, the contents of NO and Ang-II in rat plasma and the rat heart function were observed.

Results Compared with those in the infarction group, the contents of NO in rat plasma significantly decreased ($p < 0.01$), the contents of ET-1 in rat plasma significantly increased ($p < 0.01$), and the heart function was significantly improved.

Conclusions Infrasonic treatment significantly assuages the cardiac fibrosis of rats after myocardial infarction, which may be relative with the changes of NO and Ang-II.