

Effect of alacepril on ST interval (ECG) variability in isoprotrenol induced myocardial fibrosis in experimental animals

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The aim of the study was to examine the effect of the newest and antioxidant angiotensin converting enzyme inhibitor Alacepril for cardiovascular autonomic function and ST segment elevation in Isoprotrenol induced myocardial fibrosis experimental animals. Group of wistar rats were subjected to Isoprotrenol (5mg/kg s.c.) for development of myocardial fibrosis for 15 days. Treatment with Alacepril (10, 20,30mg/kg p.o.) was given to test groups for entire treatment scheduled. All experimental groups underwent to clinical and biochemical studies. Electrocardiograms for ST interval measurement, antioxidant activity were examined and compared with control group of animals. At baseline, Isoprotrenol induced myocardial fibrosis group showed ST segment elevation ($p < 0.001$) along with change in antioxidant levels. 15 days of standard treatment of Alacepril significantly showed antioxidant activity via reduction of endoplasmic reticulum stress without elevation of ST segment on ECG recording. These data suggest that therapy with Alacepril significantly improves the auto rhythmic balance increasing parasympathetic activity, and cardiac electrical activity. These effects could contribute to reduce myocardial fibrosis as well as sudden cardiac death in at-risk MI patients.

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