

The effect of infliximab on oxidative stress after myocardial infarction in rats

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Abstract:

Infliximab is a human mouse human chimeric IgG1 antibody that includes human stable regions and variable mouse regions that have inhibitory effects on TNF α , and has recently been used to treat Crohn's disease, urticaria colitis, rheumatoid arthritis, and psoriatic arthritis. This study was conducted to determine the effect of TNF α inhibition on infectious stress and serum lactate levels in infants after isoproterenol induced myocardial infarction in rats.

Methods and Results: For induction of myocardial infarction (MI), isoproterenol (100 mg/kg) was injected subcutaneously in a 24-hour saline solution in normal saline for 24 days. Animals after 24, 48, 72 and 96 hours after the second dose of isoproterenol was surgically treated. After infusion of inflections, 24, 48, 72 and 96 hours of surgery were performed. Anesthesia for animal surgery with ketamine and xylazine (3 to 2. Blood samples were collected from the hepatic vein and serum was used after the isolation to measure biochemical factors. At the end of the test, the heart was quickly separated and washed with normal cold saline and water was taken and weighed. Induced infarction with isoproterenol 100 mg/kg changes the pattern and parameters of electrocardiography and hemodynamics, and also causes hypertrophy, necrosis, edema and severe cardiac inflammation. Injection of infliximab at a dose of 7 mg/kg in the mentioned intervals did not have an effect on induced hypertrophy due isoproterenol. Isoproterenol increases lipid peroxidation, lactate dehydrogenase, total serum antioxidant and heart tissue, and serum lactate, which seems to be a significant reduction in the levels of MDA, TAC, LDH, and LDH, especially in the early hours of myocardial infarction. Lactate reduces serum levels. But in some cases, with the passage of time does not apply photo effects.

Conclusion: The results of this study showed that infliximab, at 24-48 hours after MI, has a protective effect on cardiac myocardial infarction, and in the long term may exacerbate oxidative activity.

Key words: Infliximab, Myocardial infarction, Isoproterenol, Oxidative stress

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