عنوان مقاله:

Assessment Effect of N Acetyl Cysteine on Liver Function Test in Patient with Elective Coronary Artery Bypass Grafting with Cardiopulmonary Bypass

محل انتشار:

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خلاصه مقاله:

Background: Liver ischemic insults are important sources of liver injuries leading to production of reactive oxygen species (ROS) and mediating liver cell injury. Glutathione mediated mechanisms are among the most important defense mechanisms of the liver; N-acetylcysteine (NAC) provides cysteine for glutathione defense mechanisms. Patients undergoing cardiac surgery are at increased risk of liver ischemia. This study was performed to assess the role of NAC in prevention of liver ischemia.Materials and Methods: In a double blind, randomized clinical trial, 90 patients entered the study in two groups (45 in each). Patients in the NAC group received 150 mg/Kg NAC after induction of anesthesia and the other group, the same volume of placebo. Serum levels of aspartate aminotransferase (AST), Alanine aminotransferase (ALT) and bilirubin were checked before and after the surgery. ANOVA was used for data analysis and p value less than 0.05 was considered statistically significant.Results: No difference between the two groups regarding basic variables; however, the postoperative values of AST and ALT were lower in the NAC group with statistically significant difference. Also, postoperative levels of total bilirubin were lower in the NAC group compared with the control group; a statistically significant difference.Conclusion: Patients undergoing CABG are advised to receive prophylactic 150 mg/Kg NAC to improve their postoperative levels of AST, ALT and bilirubin.

کلمات کلیدی:

glutathione antioxidant mechanism, N-acetylcysteine; Aspartate aminotransferase (AST), Alanine aminotransferase (ALT), bilirubin, liver ischemia