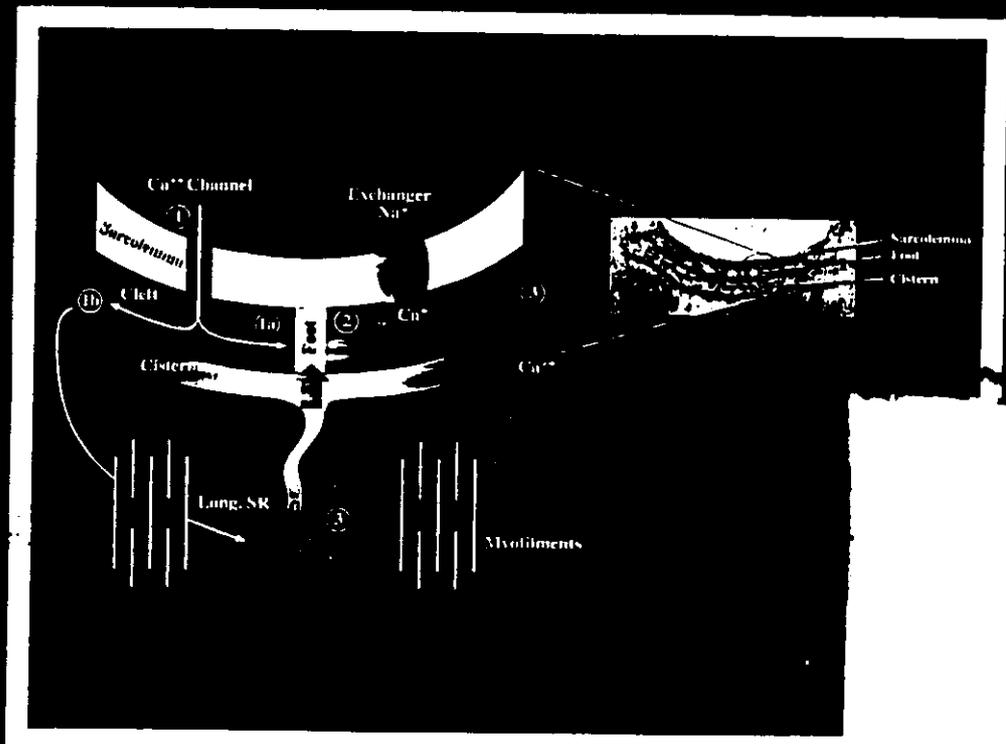


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CARDIOPROTECTION BY L-CARNITINE IN S12 PATIENTS DURING CORONARY SURGERY

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Ischemic-reperfusion injury has been found to occur during cardiac surgery on ischemic hearts. Mechanisms concerning the origin and development of this syndrome are very complex. In present study the effect of l-carnitine, an important compound in cardiac metabolism, was studied in patients with low left ventricular ejection fraction randomly selected for coronary artery bypass grafting. 10 patients were given an infusion of 4 g L-carnitine immediately before the surgery, and 10 patients with placebo served as controls. Following variables were estimated: restoration of the sinus rhythm, number of defibrillations, occurrence of peri- and postoperative arrhythmias, hemodynamic variables, variables of energy and nucleotide metabolism and some indicators of cell antioxidant status. The protective effect of L-carnitine was manifested by increased occurrence of spontaneous restoration of sinus rhythm, by decreased incidence of ventricular fibrillations after aortic declamping, by lesser number of defibrillations, by lesser need for inotropic support, by decreased incidence of peri- and postoperative arrhythmias, by decreased malondialdehyde and lactate levels, and by stabilization of glutathione level. Values of estimated hemodynamic variables immediately after surgery were significantly increased in carnitine group as compared to control group. Our results confirmed the protective effect of L-carnitine on ischemia-reperfusion injury in patients undergoing coronary surgery.

MYOCARDIAL ADAPTATION TO ISCHEMIA

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