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FLUORO-CHEMICAL EMULSIONS AND MYOCARDIAL PROTECTION AGAINST AN ANOXIA (THEORY AND EXPERIMENTS)

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More efficient cardiac performance was revealed following 6 hours ischemic preservation of heart in cardioplegic PFC. Electrophysiological analysis should homogenous restoration of excitability, electrogenesis and cardiac wave propagation favoring rapid repairing cardiac rhythm and preventing from arrhythmia. FCE were seen to reduce reperfusion damage ensuing from global ischemia and to diminish the degree of calcium paradox revealing in low diastolic contracture and higher amplitude of force in isolated heart compared to a standard cristalloid solution. The analysis of the mechanism of cardioprotective effect of emulsion on different objects showed its complex nature including cell membrane lipid phase stabilization, (the decrease in potassium outflux and Ca influx) the reduction of myocardium catecholamine sensitivity, the rise of cell osmotic resilience, the maintenance of pH physiological value and the reduction of tissue swelling. All this is likely to determine high efficiency of the new method of FCE cardioplegia in patient with acquired heart diseases which prevented the development of acute heart failure in early post-operative due to adequate of heart protection.