INTERMITTENT COLD CRYSTALLOID CARDIOPLEGIA VS. WARM HYPERKALEMIC CARDIOPLEGIA IN CORONARY BYPASS SURGERY

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Background: myocardial protection is a crucial part of CABG and affects directly the outcome. For years cooling the myocardium was the base of myocardial protection recently warm cardioplegia introduced. Objective to evaluate the effect of warm cardioplegia vs. cold cardioplegia.

Material and methods: 60 CABG patients are submitted to the study, divided into 2 equal groups; Group (A) received intermittent cold Crystalloid cardioplegia, of the modified St. Thomas with K+ conc. Of 30 mEq/L every 20-25 minutes. And group (B) received intermittent warm (37°C) hyperkalemic antegrade cardioplegia. Before declamping reperfusion of oxygenator blood only is given with a rate of 350ml/minute for 3minutes, at the end of which the aortic clamp is removed.

Patients were observed for: Cross clamp time, the need for DC shock to regain sinus rhythm, by pass time, ECG analysis after bypass, the need for mechanical or pharmacological support, and Potassium and Hct level after declamping. After resuming myocardial contractility, cardiac enzymes were evaluated.

Results: Dc shock was significantly less in group (B). Bypass time cardiac enzymes and cross clamping time shows insignificant difference. The need for mechanical ventilation and need for inotropic support were significantly shorter in group (B). Potassium level and Hct were significantly higher in group (B).

Conclusion: This study is in favor of using warm cardioplegia instead of cold cardioplegia for patients undergoing on-pump CABG.