eComment: Is blood cardioplegia superior to crystalloid cardioplegia in pediatric cardiac surgery?

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The relative advantage of blood cardioplegia in relation to crystalloid cardioplegia is still the subject of debate. In spite of theoretical advantages with blood cardioplegia, the research literature is equivocal and crystalloid cardioplegia is still the subject of debate. In spite of theoretical advantages with blood cardioplegia, the research literature is equivocal and crystalloid cardioplegia is still the subject of debate.

I read with interest Mr. Jacob’s best evidence topic entitled ‘Is blood cardioplegia superior to crystalloid cardioplegia?’ [1]. I congratulate him and his colleagues for the efforts made to reach an answer on this issue. We all know that there still is controversy regarding which cardioplegic solution, temperature and route of administration is superior to others. There is also evidence as shown by Jacob et al. that there is enhanced postoperative myocardial protection with cold blood cardioplegia. We know also that high risk patients such as the ones with left ventricular dysfunction benefit most from optimal cardioplegia. Our study [2] is one of the papers mentioned in Jacob et al. paper. We attempted to answer the question of whether the cardioplegic type affect outcome and survival in patients in the study group. We had nine years follow-up of this group of patients by contacting their general practitioners, primary health authorities and telephone interviews with patients and their families. We found out that 1, 3, 5, 8-year survival was 96%, 92%, 88%, 76% in the blood group and 100%, 100%, 96%, 88% for the crystalloid group. There was no difference in the incidence of myocardial infarction between both groups. There was increased incidence of recurrence of angina and the rate of re-intervention in the crystalloid group but did not reach a statistical significance. We conclude that Mr. Thomas No 1 cold blood cardioplegic solution enhanced immediate postoperative myocardial protection, but has no advantage on long-term mortality or morbidity.

References


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eComment: Long-term outcome after coronary artery bypass grafting in patients with left ventricular dysfunction: does the type of cardioplegia matter?

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References


