

# Is there a role for beating heart valve surgery with continuous antegrade coronary perfusion?

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## ABSTRACT

**Keywords:** beating heart valve surgery, myocardial protection, antegrade coronary perfusion.

**Objective:** the aim of this study was to describe a technique for beating heart valve surgery with continuous antegrade coronary perfusion, to assess its safety and feasibility and to report our initial clinical experience.

**Methods:** from July 2007 to December 2008, 19 patients underwent beating heart valve surgery. The indications were: coronary artery disease in patients with acute coronary syndrome (ACS) associated with valve disease in 10 cases; valve disease in patients with previous CABG and patent grafts in 9 cases. Aortic valve replacement, mitral valve replacement, mitral valve repair and double valve replacement were performed in 15, 1, 2 and 1 patients respectively. Associated CABG was performed in all patients with ACS. Coronary arteries were continuously perfused via patent LIMA graft and/or selective graft perfusion using a single roller pump separate from the systemic circulation and/or direct cannulation of the coronary ostia using a specific balloon cannula.

**Results:** aortic cross clamp time and cardiopulmonary bypass time were  $63 \pm 17$  and  $96 \pm 20$  minutes respectively. There was no hospital mortality. No major complications were observed during hospital stay. All patients were successfully discharged.

**Conclusion:** in our experience, this technique has shown to be safe and effective. In selective patient, it could be considered as an alternative to conventional techniques.