RESUSCITATION IN CARDIAC SURGERY PATIENTS

Reply to the Editor:

We thank Buckberg and colleagues for their response to our review of resuscitation practices in cardiac surgery and for pointing out the benefits of the substrate-enriched perfusate in patients undergoing cardiac surgery.[1]

An experience published in 2006 by Athanasuleas and colleagues[2] describes a cohort of 34 patients undergoing ''controlled reperfusion'' with substrate-enriched perfusate after cardiac arrest during a period between 1992 and 2001. Patients included in that study had known coronary disease and maintained blood pressure >60 mm Hg during cardiopulmonary resuscitation. Only 14 out of 34 patients had undergone cardiac surgery, whereas the others had known coronary disease but no previous cardiac surgery. Cardiac arrest time was 72 $\pm$ 43 minutes and 30 patients underwent cardiopulmonary bypass initiation via full sternotomy and only 4 via femoral cannulation. A reported 79.4% of patients survived, with only 2 patients experiencing permanent neurologic injury. Furthermore, article exclusion criteria did not define irreversible events, and the overall number of patients experiencing cardiac arrest was unknown, creating significant selection bias within the cohort.[2]

The concept of confirming invasive blood pressure, moving a patient in cardiac arrest to the operation room or cardiac catheterization laboratory, and/or performing coronary catheterization under conventional cardiopulmonary resuscitation if extracorporeal membrane oxygenation is readily available, creates significant logistic and safety concerns that can be managed in only a few selective centers.

ECPR as an emerging technique that can shorten the time of poor or unclear perfusion during conventional cardiopulmonary resuscitation has been shown to be an effective tool with significant survival benefit and can be performed at the bedside without moving the patient.[3] This was recognized as a standard of care by the American Heart Association/American College of Cardiology in their resuscitation guidelines.[4]

The technique described by Buckberg and colleagues[1] was created before extracorporeal cardiopulmonary resuscitation was introduced as a resuscitation tool and despite great results it will be reserved for a few selective centers due to its complexity and aggressiveness.

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References

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2. Athanasuleas CL, Buckberg GD, Allen BS, Beyersdorf F, Kirsh MM. Sudden cardiac death: directing the scope of resuscitation towards the heart and brain. *Resuscitation*. 2006;70:44-51.
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Notice of Correction

Re: Baisi A, Raveglia F, Cioffi U. Computed tomography or chest radiograph surveillance following stage I non–small cell lung cancer resection [letter]? *J Thorac Cardiovasc Surg*. 2015;149:1467-8.

In the above-noted letter to the Editor, the last author's surname was misspelled. The correct spelling is ''Cioffi.'' The corrected author list is reprinted below.

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