deterioration occurs, cardiopulmonary CPB can be initiated without any delay. We recommend the use of both TEE and ETCO₂ monitoring during the learning curve or in cases with atrial shunts or varicoses. Now, having performed endoscopic vein harvesting in over 300 patients, in standard cases we use TEE mostly in stand-by.

References


Letter to the Editor

Renal haemodynamics during cardiopulmonary bypass

Guillermo Lema*, Roberto Canessa

Keywords: Cardiac surgery; Renal function; Cardiopulmonary bypass

I have read with great interest the work by Simon et al. [1] and I would like to add comments to the discussion.

For many years most of the early and late complications of this surgery have been associated with the use of CPB, in patients with abnormal preoperative renal dysfunction, however in this study no association was found between CPB time and clamp-time with the outcomes studied.

The authors claim that some of the factors presumably affecting renal function on CPB could be the ‘inadequate renal perfusion’. This fact has been transmitted over time, affecting renal haemodynamics, rather than CPB.

Whether pulsatile flow is beneficial during CPB is still speculative as no clear data have been shown in the literature so far [5].

References


Reply to Letter to the Editor

Reply to Lema and Canessa

Caterina Simon*, Fabio Capuano*, Riccardo Sinatra*

Keywords: Cardiac surgery; Creatinine clearance; CPB

Thank you for your interest in my paper and your comments [1].

Our results confirm that preoperative ClCr value is able to influence the short-term outcome instead the CPB time, the clamp-time and the type of cardiac surgery procedure. We think that with the new technology, such as coated circuit, miniaturized circuit, it is possible to minimize the early and late complications of cardiac surgery [2].

We propose that is not the time of CPB or clamp-time that is able to influence the short-term outcome in cardiac surgery, but the type of cardiac protection during surgery, the haematocrit level and the body temperature during the procedure. There are many factors that can influence the postoperative course, but the CPB time is not one of them. We suggest that an early identification of mild and moderate renal dysfunction helps clinicians to provide surgical care.
Lema et al. [3] sustain that the ‘pre-bypass and post-operative period is the most vulnerable time affecting renal haemodynamic, rather than CPB’ but this is another end point not related with our study. The aim of this study was to investigate the impact of mild and moderate renal dysfunction on short-term outcome in open-heart surgery.

The effect of CPB on renal function and the high number of factors that could affect it (the anaesthesia, the bypass technique used, the presence of mannitol in the perfusate, pulsatile non-pulsatile blood flow) is still unclear and controversial [4].

References


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