CONTINUOUS VERSUS INTERMITTENT RENAL REPLACEMENT THERAPY FOR ACUTE RENAL FAILURE AFTER CARDIAC SURGERY

Prof. Sahar Badawy, MD
Ass. Professor of Anesthesia and Intensive Care, Cairo University, Egypt

Severe acute renal failure (ARF) (defined as renal failure requiring renal replacement therapy) is a major complication of cardiac surgery and is associated with a very high mortality (60% to 100%) when treated with standard intermittent hemodialysis (IH) [1]. More recently, continuous renal replacement therapy (CRRT) has been introduced, which circumvent the hemodynamic instability associated with intermittent hemodialysis (IH) and its limited ability to control the patient’s volume state [2]. The early and intensive application of this therapy has the potential to substantially facilitate the care of patients with severe ARF after cardiac operation[3]. However, the application of CRRT has been called into question because of the need for continuous anticoagulation, the required nursing support and the cost of CRRT which is greater than that needed for (IH), and the controversy about the improvement of the short-term outcome of these patients [4].

Outcome prediction, effect and choice of the modality of renal replacement therapy after cardiac operation remain poorly defined and yet important issues in the postoperative management of patients undergoing cardiac operations. Consequently, it is important for the intensivist to become familiar with the various modalities of renal replacement therapy and to gain some understanding of the differences between the modalities and their relative advantages, disadvantages, limitations, and potential complications [2].

References

