

## 【Symposium 1-3】

### **Regional Citrate Anticoagulation: Complications and Solutions in CRRT Practice**

Cheng-Chia Lee

Department of nephrology, Linkou Chang Gung Memorial Hospital

Regional citrate anticoagulation (RCA) is widely used in continuous renal replacement therapy (CRRT) due to its efficacy in preventing clotting and minimizing bleeding risks. However, its application is not without challenges, particularly in the management of citrate-related metabolic complications. Citrate metabolism in the liver and muscles generates bicarbonate, which can lead to metabolic alkalosis if too much citrate is used. Conversely, in conditions of impaired metabolism, such as liver dysfunction or shock, citrate accumulation may occur, resulting in citrate toxicity, leading to high anion gap metabolic acidosis and dyscalcemia. Understanding these metabolic complications is essential for optimizing RCA protocols, ensuring patient safety, and achieving effective anticoagulation in critically ill patients undergoing CRRT.

