

LETTER

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Endocan removal during continuous renal replacement therapy: does it affect the reliability of this biomarker?

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We read the narrative review by De Freitas Caires et al. with great interest [1]. Acute kidney injury (AKI) is prevalent among patients with sepsis, and a substantial proportion of patients with sepsis-associated AKI (SA-AKI) require renal replacement therapy (RRT) [2]. Continuous RRT (CRRT) is increasingly used (~20% SA-AKI) among hemodynamically unstable septic shock patients [2]. Endocan as a novel endothelium-derived soluble dermatan sulfate proteoglycan has a molecular mass of around 20 kDa [3]. The contemporary CRRT membranes are able to remove molecules as large as 35 kDa. Hence, endocan could be removed by CRRT [4]. When new highly adsorptive membranes (HAM) with high absorptive abilities are used, the ability of CRRT to eliminate endocan could be even enhanced [4]. Therefore, the reliability of endocan during CRRT could be altered. De Freitas Caires et al. show that endocan appeared as a consistent good diagnostic criterion as well as procalcitonin (PCT) and could potentially be used for de-escalation therapy in the future (requiring new studies obviously) as PCT. Accordingly (if endocan is used for de-escalation in the future), falsely low endocan in CRRT patients, in turn, could lead to an earlier de-escalation of antibiotics and level of care for septic patients. There has been no investigation on the performance of endocan on patients who receive CRRT. Therefore, we believe there is a critical need for a future study with a focus on the performance of the currently known sepsis biomarkers among those who receive CRRT [5].

Abbreviations

AKI: Acute kidney injury; CRRT: Continuous renal replacement therapy; HAM: Highly adsorptive membranes; PCT: Procalcitonin; RRT: Renal replacement therapy; SA-AKI: Sepsis-associated AKI

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