

Assessing Post-Cardiac Surgery Kidney Recovery Through PenKid's Emerging Role in Renal Replacement Therapy Decisions

- *Proenkephalin A 119-159 (penKid) demonstrates potential as a predictor for successful discontinuation of continuous renal replacement therapy (CRRT) in cardiac surgery patients.*
- *Study reveals significant differences in penKid levels between patients successfully and unsuccessfully liberated from CRRT.*
- *Findings suggest penKid could be a valuable tool in guiding CRRT liberation decisions.*

Hennigsdorf/Berlin, Germany, January 9, 2025 - Diagnostic company SphingoTec GmbH ("SphingoTec") announces results from the first prospective study, conducted at the Medical University of Vienna, demonstrating penKid as a discriminatory biomarker for successful liberation from CRRT in cardiac surgery patients with acute kidney injury (AKI) (1).

AKI remains a significant challenge in hospitals and is not limited to emergency cases, affecting a substantial number of up to 40% of elective cardiac surgery patients (2,3). When prolonged or further complicated, the use of CRRT might become necessary, which is one of the most resource-intensive interventions. Determining the optimal time to discontinue CRRT has been a persistent clinical challenge. The research, led by Ap. Prof. PD DDr. Martin Bernardi and colleagues, provides new insights into the utility of this biomarker.

Key Findings

The study revealed that patients successfully liberated from CRRT had significantly lower penKid levels compared to those unsuccessfully liberated (1). This distinction was particularly notable at the time of CRRT liberation. "Our findings suggest that penKid could be a valuable tool in supporting clinical decisions regarding CRRT discontinuation," stated Prof. Bernardi. "Additionally, this biomarker shows potential in identifying patients who are likely to maintain kidney function after CRRT is stopped."

Supporting evidence comes from post-hoc analyses of the RICH (5) and ELAIN (6) trials, which consistently demonstrate penKid's capability to predict kidney function recovery under renal replacement therapy and successful treatment liberation.

Bridging Gaps in AKI Management

As the critical care community continues to optimize AKI management protocols in cardiac surgery patients and beyond, penKid stands out as a promising biomarker that could refine current acute dialysis management strategies, particularly in determining optimal timing for CRRT discontinuation. For more information, Prof. Bernardi will be discussing these findings and their implications in an upcoming webinar titled "[Practice-Oriented Management of Acute Dialysis in Cardiac Surgery Patients: Strategies and Challenges in Clinical Practice.](#)"

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References:

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About SphingoTec

SphingoTec GmbH ("SphingoTec"; Hennigsdorf near Berlin, Germany) is a diagnostic company focusing on the out-licensing of innovative critical care biomarkers for diagnosing, predicting, and monitoring acute medical conditions. SphingoTec develops its biomarkers to the commercial stage and partners with IVD companies to make them available on different IVD platforms. SphingoTec's proprietary biomarker portfolio includes Proenkephalin A 119-159 (penKid), a biomarker for the assessment of kidney function in critical diseases, commercially available on diagnostic platforms AFIAS and Nexus IB10 and bioactive Adrenomedullin 1-52 (bio-ADM), a biomarker for the assessment of endothelial function in conditions like sepsis. Discover more on www.sphingotec.com

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