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Peer Review

Review of: "Case Report: Urinary Proteomic Analysis of Exercise-Induced Rhabdomyolysis with Acute Kidney Injury"

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The case report **"Urinary Proteomic Analysis of Exercise-Induced Rhabdomyolysis with Acute Kidney Injury"** presents a clinically valuable and well-documented description of exertional rhabdomyolysis complicated by acute kidney injury, integrating advanced urinary proteomic profiling and genetic susceptibility analysis, which represents a notable strength and adds novelty to the clinical discussion. The manuscript is clearly structured, supported by comprehensive biochemical, proteomic, and clinical follow-up data, and successfully highlights the potential role of urinary proteomics as a non-invasive diagnostic and monitoring tool. However, several limitations reduce the overall scientific strength. Being a single-patient case report, the generalizability of findings is inherently limited, and the study would benefit from a stronger comparative discussion with existing proteomic studies or case series to validate biomarker relevance. Additionally, the methodology of proteomic data interpretation and the statistical validation of identified biomarkers require clearer explanation to improve reproducibility and scientific rigor. Some sections of the discussion are relatively descriptive and could be strengthened by critically analyzing the clinical implications of genetic polymorphisms and their predictive value. The manuscript could also benefit from a clearer emphasis on the impact on clinical decision-making and the potential translational application of proteomic findings. Overall, the article provides an important contribution to emerging precision medicine approaches in nephrology but would benefit from methodological clarification and stronger contextual integration with current literature.

Declarations

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Potential competing interests: No potential competing interests to declare.