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

Christopher P. Ingalls[1]

1 Georgia State University, United States

Dear authors, thank you for the opportunity to review your case study entitled "Urinary Proteomic Analysis of Exercise-Induced Rhabdomyolysis with Acute Kidney Injury". Your case study presents intriguing and comprehensive data on an individual who experienced exertional rhabdomyolysis (ER) and ER-induced acute kidney injury (AKI). Your title and abstract appropriately summarize the case study, and for the most part, your conclusions are supported by your data. I have minor suggestions to improve the readability of the manuscript.

Abstract:

Suggested revision for clarity: **Genetic testing revealed** "the individual exhibited a polygenic risk profile for ER, increasing susceptibility to inflammation and muscle damage."

Suggest moderating the conclusion because this case study does not really allow for conclusive hypothesis testing of mechanisms of ER: "The utilization of urinary proteomics emerged as a non-invasive method for monitoring pathophysiological changes, offering valuable insights into **possible** ~~the~~ mechanisms underlying ER and associated AKI.

1. Introduction:

(1st paragraph): Delete "Amongst them"

2. Case description:

Suggest adding environmental conditions (temperature, humidity, heat index, altitude) and hydration status, if possible, during the time period in question.

Correct the error in punctuation between the following apparent two sentences: "The patient underwent hemodialysis on multiple days D6, D7, D8, D10, D11, and D14, leading to normalization of laboratory parameters, and he was discharged after 16 days without any symptoms;~~,~~ supplementary Figure 1 shows the evolution of biochemical exams and urinary output over the course of these days.

3. Diagnostic assessment/Results:

Recommend characterizing the number of days between D0 and D4 that "…12 hours of strenuous military physical training" occurred.

4. Discussion:

Supplementary Figure 2. Clarify the discrepancy between the figure and the narrative about the subject being admitted to the hospital on D3 vs. D4.

Clarify the use of the term "implication" in the following sentence: "This knowledge can facilitate the implication of preventive measures, keep the individual and their team vigilant to the possibility of ER, and enable an earlier diagnosis of ER and its complications, such as AKI." Do the authors mean to indicate that these measurements can be used to facilitate their use to prevent or screen for increased risk of ER and/or ER-induced AKI?

Throughout Results:

Be consistent in the presentation of creatinine data: 1,1 mg/dl versus 1.1 mg/dl