

## Another Victim of Rapid Weight Loss?



**To the Editor:** We read the case entitled “Sauna-Induced Fatal Rhabdomyolysis” by Zhuo *et al.*<sup>1</sup> with interest. The authors described a mixed martial arts combatant with a history of sauna use before a fight. The patient died due to rhabdomyolysis-induced hyperkalemia. The authors underlined sauna use, dehydration, hyperthermia, strenuous activity, and sickle cell trait as risk factors for rhabdomyolysis. We believe there is one more teaching point in this case: rapid weight loss (RWL).

RWL, that is, “weight cutting,” is a common practice in weight-sensitive sports. Athletes lose 10% to 15% of body weight in the day/week before tournaments. Salt baths, use of plastic suits, sauna, and other techniques are frequently used before weigh-ins.<sup>2</sup> In a current survey, 88% to 97% of all martial arts fighters admitted practicing RWL.<sup>3</sup> Fatal rhabdomyolysis secondary to RWL has been reported.<sup>4</sup> We believe the patient presented by Zhuo and associates<sup>1</sup> was also a victim of RWL. Unfortunately, these cases in the medical journals are just the tip of the iceberg.

In addition to excellent coverage of rhabdomyolysis by the authors, health issues regarding RWL are worth mentioning. Hypoglycemia, electrolyte abnormalities, severe dehydration (e.g., kidney injury, hypotension, syncope) have been reported in acute settings. Hormonal

disturbances, insulin resistance, and increased cardiovascular risk are possible long-term consequences.<sup>2</sup> Physicians should be aware of the concept of RWL and associated risks.

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