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Letter to the Editor

Time-dependent results in troponin exercise-induced fluctuations

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We read with interest the article of Wundersitz et al., in which the authors failed to observe significant elevation of cardiac troponin (cTn) I in 15 subjects who completed a 21-day, 3515-km fundraising cycling ride [1]. They measured TnI concentrations 3.0 ± 1.8 days after completing the ride [1]. Regarding this article, Martínez-Sellés and Lucia highlighted that no significant changes were found in cardiac damage biomarkers, *i.e.*, cTnI, thus suggesting that natriuretic peptides should also have been assayed whereby their values increase after professional road cycling [2]. However, König et al. measured brain natriuretic peptide (BNP) and cTnT in 11 highly trained male professional road cyclists before and immediately after a stage of a 5-days cycling race [3], reporting significant increases in both biomarkers. Interestingly, Kleiven et al. recently published a study in which both cTnI and cTnT (cTns) concentrations were measured in 1002 recreational cyclists 24 h prior to, and 3 and 24 h after a 91-km mountain bike race. An increase of cTns was found in all subjects after the race [4]. Specifically, values of cTns increased in all subjects 3 h after high-intensity exercise, whilst 18–30% of subjects had elevated levels of cTns at 24 h [4]. Notably, cTns tend to peak between 2 and 6 h of post-moderate and high-intensity exercise (*i.e.*, endurance running and cycling), but normalize within a maximum of 24–48 h [5]. Data published by Wundersitz and colleagues is of minor clinical value for establishing cardiac biology after strenuous exercise since are not aligned with the established kinetics of cTns.

Declaration of Competing Interest

The authors have no conflicts of interest to declare.

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