Correction: Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis

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After the publication of the article named “Energetic metabolism in cardiomyocytes: molecular basis of heart ischemia and arrhythmogenesis”¹, we found that the article by Stanley et al.² was unwisely omitted from the fourth paragraph of the section titled “Fuel for myocardial contraction: the role of macromolecules”. This reference should be cited in the first, third and fourth sentences of this section, namely “The metabolic machinery of the heart utilizes oxygen up to 80%-90% of the maximum capacity of the electron transport chain; however, at a resting state, the heart operates at only 15%-25% of its maximum oxidative capacity”, “Cardiomyocytes show an elevated rate of ATP hydrolysis, which is strongly linked to oxidative phosphorylation. Because under non-ischemic conditions, over 95% of these cells’ ATP is produced in this process, it is indispensable in order to assure the full replenishment of the cardiomyocytes’ ATP content every 10 s, and thus maintain constant concentrations of this molecule, even under conditions of increased frequency or force of contractions” and “Of the total energy produced by ATP hydrolysis, approximately 60%-70% serves as fuel for contraction, while the remaining 30%-40% is used by the Ca²⁺ ATPase pumps in the smooth sarcoplasmic reticulum and other ion pumps”.

REFERENCES


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