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Reply

Reply to letters regarding our paper “Cardiovascular risks of hydroxychloroquine in treatment and prophylaxis of COVID-19 patients: A scientific statement from the Indian Heart Rhythm Society”

Keywords:

Hydroxychloroquine
 COVID-19
 QTc interval

The authors thank Gupta et al. [1] and Mahendran et al. [2] for their interest and comments on our paper titled ‘Cardiovascular risks of hydroxychloroquine in treatment and prophylaxis of COVID-19 patients: A scientific statement from the Indian Heart Rhythm Society’ [3]. Authors of both letters have raised similar points regarding method to compute QTc interval. We agree that there are numerous formulae that attempt to correct QT for heart rate using exponential methods [4,5,12], linear correlation [6–9], logarithmic correction [10], and others [11]. There is considerable disagreement on which method is best for this purpose. As such, QTc is a derived value computed by one of these formulae. Therefore, in absence of a direct measurement of QTc, or a gold standard for reference, it is nearly impossible to prove superiority of any method for accuracy. There are no large studies confirming superiority of one method over others in a consistent manner. Most clinical studies have used the Bazett’s formula for QTc correction and most outcome data that have associated risk of arrhythmic events based on QTc values in a LQT population are based on this formula. Bazett’s formula was the first and remains most widely recognized and used method. It is mentioned in all current Cardiology and ECG textbooks, and also specifically recommended to calculate Schwartz score for diagnosis of long QT syndrome [13]. It is also the default formula for most QT interval correction apps.

Since the guidelines are meant for a wider audience including general physicians, the emphasis was on simplicity. Also, the paper is not primarily about QT interval, but on how to risk stratify and monitor COVID-19 suspects or patients who are to receive hydroxychloroquine for their treatment or prophylaxis. A detailed exposition of merits and demerits of different methods to compute QTc interval would have been a digression from the primary focus of the guidelines.

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Contribution of authors

All the authors have prepared the reply jointly and agree on it.

Declaration of competing interest

None of the authors have any conflict of interest.

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