Letter to the Editor


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In our systematic review of current published literature, we have reported outcomes on 12 papers; 5 of them were case reports, 4 case series, and 3 cross-sectional studies totalling 143 patients, of which 99 patients had CHD.1 Based on the available evidence from these studies, we concluded that CHD may increase the risk of poor outcomes for those who are contracting COVID-19; and yet due to limited cohort size and available data, there is a necessity for more research with larger sample sizes in order to have a more justified conclusion. The letter by Ahmad et al2 focuses on the fact that differences in age group, race, and complexity of the CHD could be confounders. The authors state that recent evidence suggests that CHD alone is an insufficient indicator of the disease course of COVID-19 and they propose that cardiac markers should be used in conjunction with CHD severity to better predict COVID-19 prognosis, and these should be analysed to mitigate the effect of other highlighted confounding variables such as non-cardiac comorbidities.3

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Ogunjimi et al3 recently reported that although there is a scarcity of evidence, patients with CHD are prone to an increased risk of poor outcomes if infected with COVID-19, with the paediatric population being mostly spared. Additionally, given the lack of a large data series, it is currently not possible to perform a meta-regression analysis or identify a single predicting factor for the incremental risk in CHD towards COVID-19-related complications.

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In specific response to their cited article by Lewis et al, the results of which they claim to be contrary to our findings, we proffer that a single study cannot be used to generalise outcomes over a large population of CHD patients.7 Furthermore, their finding of lacking the correlation between the complexity of CHD and the severity of infection-related cardiac decompensation does not disqualify CHD from being a predictor of worse prognosis in itself. This view is also supported by the conclusions drawn by Tan et al8 that patients with heart disease are likely to be at higher risk due to impaired functional reserve, and that late death seen in patients with COVID-19 may be attributable to myocardial damage with resultant cardiovascular collapse.

Overall, we feel there remains an unmet need for larger and multicentre studies with better control of confounding factors to understand CHD and the related COVID-19 incremental risks in all age groups and different pathologies. Fortunately, the British Congenital Cardiac Association is conducting a nationwide, multicentre survey to gauge the impact of COVID-19 on CHD more comprehensively.9 We hope this will allow us to better understand the relationship, and therefore provide better preventative strategies for our patients.

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References


