

The cardiac effects of SARS-CoV2: COVID-19 special issue

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The emergence of the SARS-CoV2 virus and the resulting COVID-19 pandemic has had wide-reaching implications for day-to-day living and medical science. In particular, cardiology as a specialty has seen drastic changes during this period.¹ On the one hand, the pandemic has highlighted the speed with which high-quality research can be organized.² On the other hand, it has demonstrated significant limitations in the peer-review process and medical publishing at large. The process for journals to quickly publish high-quality, cutting-edge research was found wanting in this fast-paced environment and led to several high profile retractions.^{3,4}

European Heart Journal – Case Reports was not immune to the difficulties imposed by COVID-19. Unlike many other journals, the majority of our authors are full-time clinicians. The vast majority of our editorial and reviewing teams are also practising clinicians. Surges in clinical workload lead to significant reductions in the effective staffing of the journal. This was combined with significant increases in submissions and was further complicated by a desire to provide rapid peer-review for manuscripts at a time when the global pandemic was changing quickly. However, throughout, *European Heart Journal – Case Reports* stuck to its guiding principles.⁵ In particular, the need for patient anonymity and consent when publishing case reports and the need to ensure that cases are of high quality and provide educational value.

Case reports are often considered the lowest form of evidence within the medical literature.⁶ While case descriptions certainly have significant limitations, it is in emerging diseases and techniques where they can be of the most benefit. Early descriptions of HIV/AIDS and the teratogenic effects of thalidomide were through case reports.^{7,8} COVID-19 has been no different, with case reports providing important clinical insight into a new and important disease.

The journal has received 192 submissions to date related to the COVID-19 pandemic and effects on the cardiovascular system. In this special issue, we present the entirety of the case reports accepted by *European Heart Journal – Case Reports* during the COVID-19 pandemic to date. They highlight that this virus, while primarily leading to respiratory symptoms, has significant impacts on the heart. The effects of this virus include potential effects on the conducting system,⁹

development of arrhythmias,¹⁰ coronary artery disease,¹¹ thrombosis,¹² and myocardial effects.^{13,14} In addition, there is a suggestion that underlying cardiac disease may contribute to poor outcomes from SARS-CoV2 infection.¹⁵ This collection is an excellent repository demonstrating the clinical effects of COVID-19 on the cardiovascular system. While all of these findings would benefit from more structured analysis, these observations provide important starting points for further research.

European Heart Journal – Case Reports is thankful to the entire Editorial Board and reviewing teams for their tireless work with the journal throughout a period when their clinical activities demanded a great deal of their time. We are also grateful to the European Society of Cardiology for its support for the journal during the pandemic. In particular, they provided funding for a number of COVID-19 case reports to be published in *European Heart Journal – Case Reports*. This has helped to ensure that barriers to the publication of high-quality case reports were as low as possible.

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References

1. Pessoa-Amorim G, Camm CF, Gajendragadkar P, De Maria GL, Arzac C, Laroche C et al. Admission of patients with STEMI since the outbreak of the COVID-19 pandemic: a survey by the European Society of Cardiology. *Eur Heart J Qual Care Clin Outcomes* 2020;**6**:210–216.
2. RECOVERY Collaborative Group, Horby P, Lim WS, Emberson JR, Mafham M, Bell JL et al. Dexamethasone in hospitalized patients with Covid-19—preliminary report. *N Engl J Med* 2020;**382**:2582.
3. Mehra MR, Desai SS, Kuy S, Henry TD, Patel AN. Retraction: cardiovascular disease, drug therapy, and mortality in Covid-19. *N Engl J Med* 2020;**382**:2582.
4. Mehra MR, Ruschitzka F, Patel AN. Retraction-hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis. *Lancet* 2020;**395**:1820.
5. Camm CF, Camm AJ. *European Heart Journal - Case Reports (EHJ-CR): a new format for an old concept*. *Eur Heart J Case Rep* 2017;**1**:ytx001.
6. Murad MH, Asi N, Alsawas M, Alahadab F. New evidence pyramid. *Evid Based Med* 2016;**21**:125–127.
7. Gottlieb MS. Pneumocystis pneumonia—Los Angeles. *Am J Public Health* 2006;**96**:980–981. discussion 982–3.

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8. Ward SP. Thalidomide and congenital abnormalities. *Br Med J* 1962;**2**: 646–647.
9. Ashok V, Loke WI. Case report: high-grade atrioventricular block in suspected COVID-19 myocarditis. *Eur Heart J Case Rep* 2020;doi:10.1093/ehjcr/ytaa248.
10. Lugenbiel P, Roth L, Seiz M, Zeier M, Katus HA, Merle U et al. The arrhythmogenic face of COVID-19: Brugada ECG pattern during acute infection. *Eur Heart J Case Rep* 2020;doi: 10.1093/ehjcr/ytaa230.
11. Garg A, Hakeem H, Divita M, Grewal J, Cohen M, Lapa A. ST-elevation myocardial infarction in a young patient with anomalous right coronary artery and COVID-19 pneumonia. *Eur Heart J Case Rep* 2020;doi: 10.1093/ehjcr/ytaa198.
12. Sang CJ, Heindl B, Von Mering G, Brott B, Kopf RS, Rajapreyar I. Massive pulmonary embolism in a COVID-19 patient: a case report. *Eur Heart J Case Rep* 2020;**2020**:1–7.
13. van Osch D, Asselbergs FW, Teske AJ. Takotsubo cardiomyopathy in COVID-19: a case report. Haemodynamic and therapeutic considerations. *Eur Heart J Case Rep* 2020;doi:10.1093/ehjcr/ytaa271.
14. Li A, Garcia-Bengochea Y, Stechel R, Azari BM. Management of COVID-19 myocarditis with reversal of cardiac dysfunction after blunting of cytokine storm: a case report. *Eur Heart J Case Rep* 2020;doi:10.1093/ehjcr/ytaa224.
15. Schnaubelt S, Breyer M-K, Siller-Matula J, Domanovits H. Atrial fibrillation: a risk factor for unfavourable outcome in COVID-19? A case report. *Eur Heart J Case Rep* 2020;doi:10.1093/ehjcr/ytaa166.