

Reference

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Commentary: “Murder on the Orient Express of pandemic: COVID was found guilty, but was it the murderer?”

Giulia Poretti, MD, and Mauro Lo Rito, MD



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In Agatha Christie’s novel *Murder on the Orient Express*, detective Hercule Poirot brilliantly resolves the murder of Mr Ratchett, a kidnapper, and proposes 2 possible solutions. The first is a plausible solution that fits with the scenario and saves the unfortunate group of murderers, who were looking for revenge. The second solution describes what happened but would have sent all of them to jail. The investigators adopted the first solution as the truth to save the entire family from prison.

Bezerra and colleagues¹ report one of the first Fontan completions in a patient with hypoplastic left heart syndrome who had contracted COVID-19 infection. This case report should be read because it describes all the challenges that our community of congenital cardiac surgeons had to face during this pandemic. The medical evidence so far is that COVID-19 seems to affect children less frequently than adults, although some subgroups may be vulnerable to the most severe form of infection.²⁻⁴ In children, SARS-CoV-2 has a typical presentation with fever, cough associated with leukopenia, and lymphopenia.⁵ Multiple

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During the COVID-19 pandemic, patients with congenital heart disease may contract the virus. It is easy to accuse the virus, but common hospital complications must not be forgotten: a compelling case.

small patchy shadows, consolidations, and peripheral interstitial changes are typical radiographic findings.^{2,5,6}

The most striking findings in this case report are the COVID-19 nasopharyngeal swab results and the lung involvement. The patient underwent fenestrated extracardiac Fontan completion and tricuspid valve plasty, and then required reoperation for pacemaker implantation secondary to complete atrioventricular block. Subsequently he developed profound desaturation that triggered an invasive cardiologic assessment and COVID-19 swab, based on a family history suggestive for such infection. Surely this is one of the first cases of a patient with COVID-19 who underwent surgery for congenital heart disease, and the explanation provided easily fits the scenario, but that may not be what actually happened. There may be another explanation, and like Hercule Poirot, we would like to take you through it. The initial chest radiograph showed pleural effusion, and radiography after reoperation revealed multiple pulmonary consolidations, most evident in the upper third of the right lung, which is more typical of bacterial pneumonia than of COVID-19. The elevated C-reactive protein level and

From the Department of Congenital Cardiac Surgery, IRCCS Policlinico San Donato, San Donato Milanese, Italy.

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Address for reprints: Mauro Lo Rito, MD, Department of Congenital Cardiac Surgery, IRCCS Policlinico San Donato, Piazza Edmondo Malan 2, 20097, San Donato Milanese, Italy (E-mail: mauro.lorito@gmail.com).

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leukocytosis with neutrophilia were more likely to be caused by bacterial pneumonia.⁷

Furthermore, the patient responded to antibiotic therapy with substantial clinical improvement after 1 week. Despite the positive SARS-CoV-2 swab, a bacterial pneumonia may be responsible for the clinical course. Bacterial pneumonia is frequently seen in children with COVID-19, as reported by the Wuhan Children's Hospital.⁶ We leave the final interpretation to you, and invite you to enjoy the reading to learn the difficulties they encountered. For us, the learning points missed in this case are (1) the importance of preoperative COVID-19 screening, especially in children, who usually contract the infection from family clusters,^{4,8} and (2) that in the presence of the COVID-19 pandemic, other possible causes of postoperative lung complications should not be neglected.

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Commentary: The importance of operative timing in the era of coronavirus disease 2019 (COVID-19)

John P. Costello, MD, and Victor T. Tsang, FRCS

The current worldwide coronavirus disease 2019 (COVID-19) pandemic has required all health care practitioners to consider the care of their patients in an entirely new light. This is especially paramount when determining the timing

From the Cardiothoracic Unit, Great Ormond Street Hospital for Children, London, United Kingdom.

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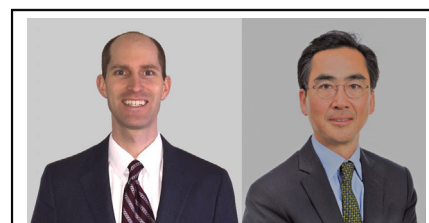
Address for reprints: Victor T. Tsang, FRCS, Cardiothoracic Unit Great Ormond Street Hospital for Children, Great Ormond St, London WC1N 3JH, United Kingdom (E-mail: Victor.Tsang@gosh.nhs.uk).

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John P. Costello, MD, and Victor T. Tsang, FRCS

CENTRAL MESSAGE

Providers must carefully consider testing and the true urgency of operative interventions in congenital heart disease patients with recent SARS-CoV-2 exposure, symptoms, or lack thereof.

for any medical procedure, as providers must now, more than ever, appreciate the importance of critically evaluating what procedures are truly urgent and cannot be deferred to an elective basis. Despite the initial focus of the COVID-19 pandemic being directed toward adult patients, pediatric