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# Journal Pre-proof



Missed or Delayed Diagnosis of Kawasaki Disease During the 2019 Novel Coronavirus Disease (COVID-19) Pandemic

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**Missed or Delayed Diagnosis of Kawasaki Disease  
During the 2019 Novel Coronavirus Disease (COVID-19) Pandemic**

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**Abbreviations:**

CAA: Coronary artery aneurysm

COVID-19: 2019 novel coronavirus disease

DTC: Direct to consumer

KD: Kawasaki disease

IVIG: Intravenous immunoglobulin

**Key words:** Kawasaki disease, Bayesian thinking, COVID-19, Pediatric cardiology

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To the Editor:

Due to “stay at home” orders and risk of COVID-19, many parents now hesitate or fear seeking in-person consultation for their children. This has led to reductions in emergency room visits and hospital admissions for other critical illnesses. Additionally, health care providers

have focused on COVID-19 management during the pandemic. Because of Bayesian thinking, other diseases may be underdiagnosed or undergo delayed treatment.

Because COVID-19 now leads as the probable diagnosis for first-line providers encountering febrile patients, the potential for missed or late diagnosis and treatment of Kawasaki disease in children is particularly concerning.<sup>1</sup> Prompt diagnosis of KD and treatment with intravenous immunoglobulin (IVIG) prevents coronary artery aneurysms (CAA).<sup>2,3</sup> Without timely treatment CAAs could occur in up to 25% of children with Kawasaki disease.<sup>3</sup>

We respectfully remind caregivers of the following principles for care of children with suspected or definite KD: 1) Keep a high suspicion for KD in all children with prolonged fever, but especially in those younger than 1 year; 2) Administer IVIG within 10 days, and ideally within 7 days, from onset of fever; 3) In the presence of ongoing systemic inflammation, children with Kawasaki disease presenting with greater than 10 days of fever and/or CAA may warrant IVIG treatment; 4) Continue to obtain recommended echocardiograms according to published guidelines<sup>3</sup>; 5) Watch for late manifestations of KD, review the clinical history, and seek pediatric cardiology consultation<sup>4,5</sup>; 6) In the case of delayed diagnosis, refer to the American Heart Association management guidelines or contact an expert in Kawasaki disease<sup>3</sup>; 7) Offer telemedicine services, remote echocardiogram, and direct to consumer visits that allow for nonverbal communication, when evaluating children with confirmed or suspected KD.<sup>6-8</sup>

With this, we hope to avoid a future surge in prevalence of CAAs in patients due to missed or delayed diagnosis of KD.

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