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Letter to the Editor

Response to letter to the editor: Kawasaki disease and COVID-19: A pretext for a hot topic

While the confirmed cases with coronavirus disease 2019 (COVID-19) are still increasing rapidly worldwide, the pediatric cases are of some specific clinical feature: less susceptible, less severe, and was associated with the emerging inflammatory condition called the multisystem inflammatory syndrome in children (MIS-C).

Though children were less susceptible to the COVID-19, they still played a role in disease transmission upon the school re-opened in the United States, United Kingdom, and South Korea.^{1,2} The pediatric cases made up 10% of all US cases in October, compared with 2% in April, 2020.³ The dilemma between the negative impact of childhood mental health due to the lack of social group activity and the potential increased disease transmission in school is a vital issue for pediatricians and public health experts to focus on. Hopefully a balanced and yet practical way can be come up with to keep mandatory education for school children amid the pandemic.⁴

The severe diseases related to COVID-19 in children were also reported with various presentations, compared to adults,⁵ such as MIS-C related to COVID-19. Distinct from the Kawasaki disease (KD), MIS-C presented with older age, a higher proportion of African or Hispanic children affected, and diffuse cardiovascular involvement suggestive of a generalized immune-mediated disease.⁶ As for the clinical manifestations, patients with MIS-C also presented with more gastrointestinal tract symptoms and more extensive heart function disorientation.⁷ Jafarpur et al. described a case with systemic inflammation and possible infection of COVID-19.⁸ However, the case they described lacks a laboratory-confirmed diagnosis of COVID-19 despite the positive finding of bilateral ground-glass pattern in chest CT.⁸ Serologic testing was also not performed to prove the infection; thereby the case failed to meet the diagnostic criteria of MIS-C and could only be classified as a probable case.⁶ Though the treatment of KD and MIS-C were almost the same, precise diagnosis between the two diseases remains essential, considering

patients with MIS-C usually had more cardiac involvement and required more intensive care. The pathogenesis may also differ according to the latest report by Consiglio.⁹ The T cell subsets discriminated KD patients from MIS-C, and IL-17A drove hyperinflammation in KD but not MIS-C.⁹ Because of the potential immunopathogenic difference between the two diseases and the uncertainty of adequate treatment of MIS-C, pediatricians should be able to distinguish KD and MIS-C in the differential diagnosis in order to optimize the treatment for each.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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Yi-Ching Chen

Division of Pediatric Infectious Diseases, Department of Pediatrics, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taoyuan, Taiwan

Qing Cao

Department of Infectious Diseases, Shanghai Children's Medical Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China

Chyi-Liang Chen

Molecular Infectious Disease Research Center, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taoyuan, Taiwan

Cheng-Hsun Chiu*

Division of Pediatric Infectious Diseases, Department of Pediatrics, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taoyuan, Taiwan

Molecular Infectious Disease Research Center, Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Taoyuan, Taiwan

*Corresponding author. Division of Pediatric Infectious Diseases, Department of Pediatrics, Chang Gung Memorial Hospital, No. 5 Fu-Hsin Street, Kweishan 333, Taoyuan, Taiwan.
E-mail address: chchiu@adm.cgmh.org.tw (C.-H. Chiu)

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