

CORRESPONDENCE

Pediatric inflammatory multisystem disease in children with COVID-19

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To the Editor,

we would like to share ideas on the publication “The “perfect” storm: Current evidence on pediatric inflammatory multisystem disease during SARS-CoV-2 pandemic (1)”. Lami et al. noted that “cases of pediatric patients who have developed severe inflammatory syndrome temporally related to SARS-CoV-2 have been reported both in USA and Europe (1)” and “Clinical characteristics are greater median age than KD, higher frequency of cardiac involvement and gastrointestinal symptoms, lower frequency of coronary anomalies (1).” In fact, the atypical clinical presentation in COVID-19 is possible. Regarding pediatric inflammatory multisystem disease, it is a kind of immunopathological condition. This condition is a well-known problem in several virus infection. For COVID-19, the Kawasaki disease is an early reported condition (2) before we presently know the pediatric inflammatory multisystem disease.

The observation that the cases are commonly seen in Europe or USA is interesting. In tropical country, the condition is rare and it might be related to underlying genetic or immunological background. In fact, in tropical Asia, there are many endemic virus infections that can induce immunopathology such as dengue. The investigation on the impact of the underlying immunological background is interesting. Another important point is the diagnosis. It should note that there is a chance that COVID-19 might co-exist with other infection that might induce pediatric inflammatory multisystem disease. The good example is the concurrent COVID-19 and dengue infection (3). Nevertheless, if COVID-19 serological test, not PCR, is used, a false positive is possible and it is already reported

as a false diagnosis of COVID-19 related Kawasaki disease in a Kawasaki disease patient who had not COVID-19 (4).

Conflicts of interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

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