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LETTER TO THE EDITOR

# Clinical and laboratory findings of multisystem inflammatory syndrome in children (MIS-C) below age 1

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We read the article by Ozsurekci and colleagues with great interest [1]. The article examines the clinical and laboratory characteristics of 30 multisystem inflammatory syndrome in children (MIS-C) cases and provides valuable data for the literature. MIS-C is a clinical entity that develops secondary to immune dysregulation after contracting SARS-CoV-2.

The article's discussion part refers to the literature, which describes that MIS-C develops a few weeks following exposure [1]. It is speculated that SARS-CoV-2 could have a more symptomatic course in infants below the age of 5. Furthermore, there is no data pertaining to the correlation between age and the severity of disease in MIS-C. There is also no data regarding the time of onset of MIS-C symptoms after SARS-CoV-2 exposure according to age in pediatric patients.

It has been speculated that MIS-C may have a varying course in children according to age. This may be because the risk of developing immune dysregulation can vary across different age groups in children. The article by Ozsurekci and colleagues does not contain any information regarding the severity and duration of developing MIS-C according to age groups. All cases mentioned in the article are above the age of 1. There are a limited number of publications regarding the clinical course and laboratory findings of MIS-C in cases below age 1 [2]. While other age groups may exhibit typical symptoms such as fever, rash, respiratory distress, and gastrointestinal symptoms, cases below the age of 1 may present with more uncommon symptoms such as febrile convulsion, persistent pulmonary hypertension and coronary artery aneurysm.

In this regard, we would like to present 10 MIS-C cases below age 1 diagnosed and monitored in our clinic. The mean age of these patients is 90 (6–245) days. The most common symptoms were fever and rash (in 80%), vomiting and feeding inability (in 30%), and respiratory distress (in 20%). Febrile convulsion and diarrhea were each observed in 1 patient. Six cases tested positive for SARS-CoV-2 IgG. There were 6 cases exhibiting a clinically significant increase in *C-reactive protein* (*CRP*).

Comorbidity was present in 50% of the cases. Two cases with comorbidity died. These cases were affected by a ventricular septal defect and an aortic outflow obstruction of moderate severity. On the topic of the patients' medical history, the mean time interval between contact exposure to SARS-CoV-2 and the onset of symptoms was 10.6 (4–16) days.

Cases under the age of 1 may exhibit a varying immune response due to antibodies from the mother, vaccine exposure and effective thymus activity [3]. Compared to other age groups, these patients may present with different clinical and laboratory findings and may have a varying time of onset. Our patient group demonstrated an early time of onset for MIS-C following SARS-CoV-2 exposure. It should be considered that there may be a difference particularly in disease severity, systems involved and time of MIS-C onset. In the article by Ozsurekci and colleagues, if there is a difference between the age groups in terms of MIS-C severity, degree of involvement, and time of onset, emphasizing this difference will inform the reader on the clinical course of the disease.

We believe that investigating the presentation of MIS-C in different age groups will aid in diagnosing the disease, predicting the clinical course and planning approaches for treatment.

Best regards

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## Declarations

**Disclosures** None.

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