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CORRESPONDENCE

MIS-C Mimickers: A Case Series of Bacterial Enteritis and Sepsis Mistaken as MIS-C

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To the Editor: Multisystem inflammatory syndrome in children (MIS-C) is an uncommon manifestation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection characterized by fever, mucocutaneous and gastrointestinal involvement, shock, and elevated inflammatory markers [1–3]. In tropical countries like India, it may be difficult to differentiate MIS-C from tropical infections and gastroenteritis (bacterial/viral) due to overlapping features [4].

We present 9 children who presented during the surge of MIS-C (January–June 2021) with fever, gastrointestinal symptoms, and raised inflammatory markers raising suspicion of MIS-C. Other features noted were erythematous rash, conjunctival injection, and seizures and encephalopathy in 3 each; respiratory distress in 1, shock and myocardial dysfunction in 4, and multiorgan dysfunction syndrome in 2 children. Investigations revealed neutrophilia, thrombocytopenia, hyponatremia, elevated D-dimers, CRP, and ProBNP in all; and elevated procalcitonin and IL-6 in 7 children. None had history of exposure or illness suggestive of SARS-CoV-2 infection in recent past or positive RT-PCR; and 5 had positive SARS-CoV-2 antibodies. The blood cultures grew *Salmonella typhi* in 7 cases; and *Escherichia coli* and *Enterococcus raffinosus* in 1 each. Workup for tropical infections (scrub typhus, malaria, and dengue) was negative. Management included broad-spectrum intravenous antibiotics (ceftriaxone and doxycycline) in all; fluid boluses and vasoactive drugs in 4, and mechanical ventilation in 2; intravenous immunoglobulins in 8, and steroids in 5 children in view of strong suspicion of MIS-C. When confirmatory diagnosis was made, the MIS-C–specific treatment was stopped and targeted antibiotics were continued. One child died due to hospital-acquired polymicrobial sepsis after 13 d of stay and the rest survived and discharged after a hospital stay of 3–7 d.

This report highlights that a high degree of suspicion should be kept while managing children with fever, gastrointestinal and multisystemic involvement, and elevated inflammatory markers; and remember that tropical infections can mimic MIS-C [4].

Declarations

Conflict of Interest None.

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