

OP3 MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN MIMICKING SEPTIC SHOCK

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INTRODUCTION

Multisystem inflammatory syndrome in children (MIS-C) is a rare but potentially life-threatening complication following coronavirus disease 2019 (COVID-19) infection. Here we report a case of MIS-C with multiorgan dysfunction.

CASE DESCRIPTION

A fifteen year-old boy with underlying pure red cell aplasia on regular prednisolone, presented with fever, cough, diarrhea, and poor oral intake for five days. Upon assessment, the patient was lethargic, dehydrated, hypotensive, tachycardic, and tachypneic. A presumed diagnosis of pneumonia with septic shock and adrenal insufficiency was made. His blood tests revealed hypoglycaemia, leukocytosis, thrombocytopenia, hyponatraemia, acute kidney injury and severe metabolic acidosis. He was put on high flow oxygen, given intravenous (IV) dextrose 50% and normal saline solution, and started on IV ceftriaxone. After a couple of crystalloid boluses, he remained hypotensive and oliguric. He was started on inotropic support and subsequently intubated for worsening respiratory distress. In the Paediatric Intensive Care Unit, he had persistent atrial fibrillation requiring amiodarone infusion and refractory hypotension needing additional inotropes. He also underwent continuous veno-venous hemofiltration (CVVH) and platelet transfusions. He had negative polymerase chain reaction (PCR) for COVID-19 but positive serology, hence the diagnosis of MIS-C was made. He was

started on IV immunoglobulin (IVIG) and methylprednisolone therapies. His condition gradually improved and was extubated after ten days.

DISCUSSION

COVID-19 infection can precipitate an exaggerated immune response leading to MIS-C. According to the World Health Organization (WHO), MIS-C is diagnosed based on six criterias: age less than nineteen years, fever for at least three days, multisystem involvement, raised inflammatory markers, no other microbial source of inflammation, and evidence of COVID-19 infection. The diagnosis of MIS-C requires a high index of suspicion and its management starts with stabilization of airway, breathing, circulation, disability, and exposure (ABCDE). The treatment of MIS-C involves a multidisciplinary approach and immune-modifying therapy with IVIG plus glucocorticoids therapy.

CONCLUSION

MIS-C is a potentially fatal complication from COVID-19, thus a high index of suspicion combined with early resuscitation and multidisciplinary care are vital to prevent mortality.

KEYWORDS: MIS-C, COVID-19, multidisciplinary