

## **Title**

An adult presentation consistent with PIMS-TS

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## Main text

Following reports of paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 infection (PIMS-TS),<sup>1,2</sup> a 21 year old UK-born male of Somali origin, was admitted to a London hospital with six days of fever and abdominal pain associated with constipation, anorexia, and headache. He described a transient maculopapular palmar rash four days into illness (see appendix: Figure S1a, S2a). He had non-exudative conjunctivitis, cervical lymphadenopathy, cracked lips, and prominent lingual papillae (Figure S1a, S2b). CT showed mesenteric adenopathy and terminal ileitis. There was neutrophilia, eosinophilia, lymphopenia, elevated inflammatory markers, and elevated troponin T with normal ECG, transthoracic echocardiogram, and CT coronary angiogram (Figure S1, Table S1).

There was no prior history of COVID-19 symptoms or known COVID-19 contacts. Nasopharyngeal and stool samples were negative for SARS-CoV-2 by PCR. Other infective and inflammatory conditions were excluded (Table S1). Adult and paediatric specialists concluded that the most likely diagnosis was Kawasaki-like disease on the PIMS-TS spectrum. He was treated with intravenous immunoglobulin (IVIg) and methylprednisolone resulting in rapid symptom resolution and normalisation of blood parameters (Figure S1). He was discharged on low-dose aspirin on day 15.

Pre-IVIg SARS-CoV-2 serology<sup>3</sup> was strongly positive suggesting recent exposure to SARS-CoV-2 (Table S1). Kawasaki disease is described in adults in association with viral infection.<sup>4,5</sup> To our knowledge this is the first reported case of adult Kawasaki-like disease related to SARS-CoV-2 infection. There is an urgent need to recognise and fully characterise PIMS-TS in young adults to improve our understanding of pathogenesis, guide treatment decisions, and prevent sequelae in these patients.

### **Author contributions**

IJ, LCKB and AL reviewed literature and wrote the manuscript. LCKB collected data and prepared the figures. JJM contributed to discussion of the case and reviewed the manuscript.

### **Declarations of interest**

None declared.

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