**Table 1.** Clinical Characteristics, Laboratory, Echocardiogram, Treatment and Outcomes of the Four Patients With COVID-19-Related Multisystem Inflammatory Syndrome in Children

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|  | **MIS-C criteria RCPCH** | **Age (year)** | **Sex** | **Days of fever** | **Clinical features** | **KD** | **Laboratory results** | **Abnormal chest X-ray** | **Treatment** | **Echocardiogram findings** | **SARS-CoV-2** | **Complications** |
| Case 1 | Fever, neutrophils ↑, CRP ↑, lymphocytes ↓, shock, gastrointestinal and kidney involvement | 16 | M | 3 | Malaise general, asthenia, adynamia, headache, odynophagia, pain abdominal and vomiting. | Not | WBC 13.300 × 109/L, PMN 90.4%, lymphocytes 880 × 109/L, platelets 63.000 × 109/L, procalcitonin 34.3 ng/mL, DD 4.024 ng/mL, CRP 21.92 mg/dL, creatinine serum 4.08 mg/dL, AST 242 U/L, ALT 174 U/L, LDH 504 U/L, albumin serum 2.9 g/dL. | Normal | Adrenaline, cefepime, vancomycin, azithromycin, chloroquine. | Unrealized | RT-PCR (+) | Transient acute kidney injury |
| Case 2 | Fever, neutrophils ↑, CRP ↑, lymphocytes ↓, shock, gastrointestinal and kidney involvement | 7 | F | 3 | Abdominal pain, diarrhea, malaise general, asthenia, adynamia, bilateral conjunctival injection, strawberry tongue, cervical lymphadenopathy, skin rash and swollen feet | Complete | Hb 10.4g/dL, WBC 14.550 × 109/L, PMN 82.2%, lymphocytes 270 × 109/L, CRP 24.49 mg/dL, troponin I 21.3 ng/mL, DD 4.01 ng/mL, procalcitonin 40.5 ng/mL, creatinine serum 2.01, lactate 4.3, NT-proBNP: 93.8 pg/mL, ferritin 384.62 ng/mL. | Normal | IVIG, methylprednisolone, aspirin, adrenaline, cefotaxime, vancomycin. | LVEF 62% | Antibody test IgG (+)/IgM (-) | Transient acute kidney injury |
| Case 3 | Fever, CRP ↑, lymphocytes ↓, shock, gastrointestinal, myocardial and lung involvement | 6 | F | 4 | Abdominal pain, hyporexia, nausea, and she had emergency operation for suspected appendicitis that was ultimately diagnosed as mesenteric adenolymphitis. | Incomplete | Lymphocytes 1,390 × 109/L, procalcitonin 6.34 ng/mL, DD 1.47 ng/mL, fibrinogen 476.5 mg/dL, troponin I 0.01 ng/mL, CRP 9.6 mg/dL, albumin serum 2.1 g/dL. | Bilateral interstitial infiltrate | IVIG, methylprednisolone bolus, aspirin, adrenaline, azithromycin, cefepime and vancomycin. | Pericardial effusion, severe tricuspid regurgitation, LVEF 60% | Antibody test IgG (+)/IgM (-) | Pleural effusions bilateral ascites |
| On the 3th day, hypotension, delayed capillary refill, annular erythema, conjunctival injection, strawberry tongue and lip peeling. | Pleural effusions bilateral | Second dose of IVIG and methylprednisolone, enoxaparin |
| Case 4 | Fever, neutrophils ↑, CRP ↑, lymphocytes ↓, shock, gastrointestinal, myocardial and lung involvement | 4 | F | 5 | Malaise general, asthenia, adynamia, skin rash, bilateral conjunctival injection, oral mucosal changes, swollen feet, vomiting and pain abdominal. | Complete | WBC 15.120 × 109/L, PMN 83.3%, lymphocytes 1,260 × 109/L, platelets 163,000 × 109/L, ESR 53 mm/h, CRP 5.48 mg/dL, ferritin 253 ng/mL, fibrinogen 519 mg/dL, troponin I 29.9, DD 2.12 ng/mL, procalcitonin 15.44 ng/mL, albumin serum 2.9 g/dL | Bilateral interstitial infiltrate | IVIG, methylprednisolone , aspirin, adrenaline, noradrenaline, azithromycin, hydroxychloroquine, cefotaxime, vancomycin. | Myocarditis, LVEF 35% | Antibody test IgG (+)/IgM (-) | None |

RCPCH: Royal College of Paediatrics and Child Health; SARS-CoV-2: severe acute respiratory syndrome coronavirus 2; WBC: white blood cell; PMN: polymorphonuclear leukocyte; LVEF: left ventricular ejection fraction; IVIG: intravenous immunoglobulin; KD: Kawasaki disease; CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; AST: aspartate aminotransferase; ALT: alanine aminotransferase; LDH: lactate dehydrogenase; DD: D-dimer; NT-proBNP: N-terminal pro-brain-type natriuretic peptide; IVIG: intravenous immunoglobulin; RT-PCR: reverse transcription polymerase chain reaction; IgG: immunoglobulin G.

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