

**Supplementary Table S1.** Demographics, clinical findings, imaging findings, treatment, and outcome of 14 PIMS-TS patients belonging to the COVASAKI registry.

	Age Weight Comorbidities	Clinical presentation	Pharmacological treatment	Imaging results	Laboratory results	SARS COV-2 tests	PICU admission	Hospital length of stay	Outcome
<b>Patient 1 (male, African)</b>	12 years, 55 kg Asthma	3 days fever (T >38°C), diarrhoea, vomiting, hypotension, dyspnea	IVIG, iv. methylprednisolone, Anakinra, antibiotics	Chest CT: pleural effusion, bilateral interstitial pneumonia Echocardiography: tricuspid insufficiency, LVEF 45 %	WBC 19,950 cells/mm <sup>3</sup> , L 9.2%, PLT 160,000 cells/mm <sup>3</sup> , ESR 43 mm/h, CRP 29.3 mg/dL, Troponin 1047 pg/mL, ferritin 4170 ng/mL, NT-pro BNP 103,456 ng/mL	Nasopharyngeal swab: positive Serological test: positive	Yes	32 days	Complete recovery
<b>Patient 2 (female, Caucasian)</b>	10 years, 28 kg, No comorbidities	7 days fever (T >38°C), rash, vomiting, diarrhoea, abdominal pain, hypotension	IVIG, iv. methylprednisolone, antibiotics	Abdominal US: peritoneal effusion, mesenteric lymphadenopathy Echocardiography: LVEF 50%, pericardial effusion	WBC 5,390 cells/mm <sup>3</sup> , L 6.9%, PLT 82,000 cells/mm <sup>3</sup> , ESR 3 mm/h, CRP 23.1 mg/dL, Troponin 35 pg/mL, ferritin 857 ng/mL, NT-pro BNP 12,523 ng/mL	Nasopharyngeal swab: positive Serological test: positive	Yes	21 days	Complete recovery
<b>Patient 3 (male, Asian)</b>	10 years, 67 kg, Food allergy, overweight	5 days fever (T >38°C), rash, dyspnea, cough, hypotension	IVIG, iv. methylprednisolone, Anakinra, antibiotics	Chest XR: interstitial pneumonia Echocardiography: depressed left ventricular systolic function LVEF 25%	WBC 4020 cells/mm <sup>3</sup> , L 8.3%, PLT 87,000 cells/mm <sup>3</sup> , ESR 53 mm/h, CRP 30 mg/dL, Troponin 35 pg/mL, ferritin 974 ng/mL, NT-pro BNP 3544 ng/mL	Nasopharyngeal swab: positive Serological test: positive	Yes	25 days	Complete recovery
<b>Patient 4 (female, Caucasian)</b>	14 years, 65 kg, No comorbidities	1 day fever (T >38°C), abdominal pain, hypotension, headache	IVIG, iv. methylprednisolone, Anakinra, antibiotics	Chest XR: lobar pneumonia Abdominal US: peritoneal effusion Echocardiography: depressed left ventricular systolic function, septal hypokinesia LVEF 35%	WBC 18190 cells/mm <sup>3</sup> , L 3.1%, PLT 189,000 cells/mm <sup>3</sup> , ESR 114 mm/h, CRP 29.17 mg/dL, Troponin 221 pg/mL, ferritin 514 ng/mL, NT-pro BNP 33,130 ng/m	Nasopharyngeal swab: negative Serological test: positive	Yes	24 days	Complete recovery
<b>Patient 5 (female, Caucasian)</b>	8 years, 31 kg, No comorbidities	5 days fever (T >38°C), cheilitis, abdominal pain, irritability	IVIG, iv. Methylprednisolone, antibiotics	Abdominal US: peritoneal effusion, mesenteric lymphadenopathy Normal echocardiography	WBC 6,730 cells/mm <sup>3</sup> , L 15%, PLT 267,000 cells/mm <sup>3</sup> , ESR 51 mm/h, CRP 25.91 mg/dL, Troponin 37 pg/mL, ferritin 465 ng/dL, NT-pro-BNP 2645 pg/mL	Nasopharyngeal swab: negative Serological test: positive	No	14 days	Complete recovery
<b>Patient 6 (female, African)</b>	9 years, 30 kg, No comorbidities	4 days fever (T >38°C), rash, palm-plantar oedema, conjunctivitis, diarrhoea, hypotension, dispnea	IVIG, iv. Methylprednisolone, antibiotics	Chest US: limited pleural effusion Echocardiography: normal, LVEF= 55%	WBC 8,170 cells/mm <sup>3</sup> , L 4.5%, PLT 102,000 cells/mm <sup>3</sup> , ESR 9 mm/h, CRP 13.62 mg/dL, Troponin 6 pg/mL, ferritin 1157 ng/dL, NT-pro-BNP 2049 pg/mL	Nasopharyngeal swab: positive Serological test: positive	Yes	17 days	Complete recovery
<b>Patient 7 (male, Caucasian)</b>	15 years, 55 kg, No comorbidities	4 days fever (T >38°C), abdominal pain, diarrhoea, cough, myalgia, hypotension	IVIG, iv. Normal abdominal Anakinra, antibiotics, remdesivir	Normal abdominal and chest US Echocardiography: depressed left ventricular systolic function LVEF 40%	WBC 10,800 cells/mm <sup>3</sup> , L 6.1%, PLT 185,000 cells/mm <sup>3</sup> , ESR 51 mm/h, CRP 34 mg/dL, Troponin 1649 pg/mL, ferritin 4000 ng/dL, NT-pro- BNP 4735 pg/mL	Nasopharyngeal swab: positive Serological test: positive	Yes	24 days	Complete recovery
<b>Patient 8 (male, Caucasian)</b>	11 years, 55 kg, No comorbidities	6 days fever (T >38°C), headache, abdominal pain, vomiting, tachypnea	IVIG, iv. Methylprednisolone, antibiotics	Chest CT: pleural effusion, bilateral interstitial pneumonia Echocardiography: minimal ectasia of right coronary artery, normal ventricular systolic function	WBC 5,090 cells/mm <sup>3</sup> , L 18.5%, PLT 185,000 cells/mm <sup>3</sup> , ESR 54 mm/h, CRP 11.1 mg/dL, Troponin 5.9 pg/mL, ferritin 1125 ng/mL, NT-pro-BNP 4735 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	13 days	Complete recovery

# Letters to the Editors

	Age Weight Comorbidities	Clinical presentation	Pharmacological treatment	Imaging results	Laboratory results	SARS COV-2 tests	PICU admission	Hospital length of stay	Outcome
<b>Patient 9 (male, Caucasian)</b>	3 years, 17 kg, No comorbidities	5 days fever (T >38°C), abdominal pain, headache, hypotension	IVIG, iv. methylprednisolone, Anakinra, antibiotics	Chest CT: pleural effusion, bilateral interstitial pneumonia Echocardiography: minimal ectasia of right coronary artery, depressed left ventricular systolic function LVEF 40%	WBC 12,070 cells/mm <sup>3</sup> , L 9.4%, PLT 77,000 cells/mm <sup>3</sup> , ESR 31 mm/h, CRP 12.1 mg/dL, Troponin 9.9 pg/mL, ferritin 274 ng/mL, NT-pro-BNP 3105 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	12 days	Complete recovery
<b>Patient 10 (male, Caucasian)</b>	12 years, 33 kg, No comorbidities	10 days fever (T >38°C), abdominal pain, diarrhoea, vomiting, conjunctivitis,	IVIG, iv. methylprednisolone,	Normal echocardiography	WBC 10,500 cells/mm <sup>3</sup> , L 12%, PLT 476,000 cells/mm <sup>3</sup> , ESR 86 mm/h, CRP 7.5 mg/dL, Troponin 6.9 pg/mL, ferritin 903 ng/mL, NT-pro- BNP 2294 pg/mL	Nasopharyngeal swab: negative Serological test: positive	No	8 days	Complete recovery
<b>Patient 11 (male, Asian)</b>	9 years, 25 kg, No comorbidities	2 days fever (T >38°C), abdominal pain, headache	IVIG, iv. methylprednisolone,	Normal echocardiography	WBC 6,030 cells/mm <sup>3</sup> , L 8.6%, PLT 121,000 cells/mm <sup>3</sup> , ESR 24 mm/h, CRP 9.1 mg/dL, Troponin 27 pg/mL, ferritin 440 ng/mL, NT-pro- BNP 577 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	11 days	Complete recovery
<b>Patient 12 (male, Caucasian)</b>	9 years, 40 kg, No comorbidities	7 days fever (T >38°C), abdominal pain, headache, conjunctivitis, pal-plantar rash, haematuria, hypotension	IVIG, iv. methylprednisolone Anakinra, antibiotics	Chest US: bilateral interstitial pneumonia Echocardiography: depressed left ventricular systolic function LVEF 38%	WBC 7,880 cells/mm <sup>3</sup> , L 10.3%, PLT 138,000 cells/mm <sup>3</sup> , ESR 75 mm/h, CRP 32 mg/dL, Troponin 26 pg/mL, ferritin 1770 ng/mL, NT-pro- BNP 1552 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	20 days	Complete recovery
<b>Patient 13 (male, Caucasian)</b>	11 years, 51 kg, No comorbidities	6 days fever (T >38°C), abdominal pain, vomiting, diarrhoea, headache, hypotension	IVIG, iv. methylprednisolone	Echocardiography: depressed left ventricular systolic function LVEF 45%	WBC 7560 cells/mm <sup>3</sup> , L 11.3%, PLT 142,000 cells/mm <sup>3</sup> , ESR 25 mm/h, CRP 12.1 mg/dL, Troponin 15 pg/mL, ferritin 312 ng/mL, NT-pro-BNP 5339 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	14 days	Complete recovery
<b>Patient 14 (male, African)</b>	10 months, 9 kg, No comorbidities	5 days fever (T >38°C), abdominal pain, headache, intracranial hypertension, macular rash, conjunctivitis, hypotension	IVIG, iv. methylprednisolone, i.v. dexamethasone, Anakinra, antibiotics	Brain CT: initial signs of diffuse cerebral edema  Echocardiography: diffuse ectasia and hyper echogenicity of CAAs,	WBC 25,000 cells/mm <sup>3</sup> , L 10.2%, PLT 320,000 cells/mm <sup>3</sup> , ESR 55 mm/h, CRP 15 mg/dL, Troponin 7 pg/mL, ferritin 520 ng/mL, NT-pro-BNP 32,000 pg/mL	Nasopharyngeal swab: negative Serological test: positive	Yes	29 days	Right coronary artery ectasia

IVIG: intravenous immunoglobulins; iv.: intravenous; US: ultrasonography; CT: computed tomography; XR: radiography; MRI: magnetic resonance; WBC: white blood cells count; PLT: platelets; L: lymphocytes; ESR: erythrocyte sedimentation rate; CRP: C-reactive protein; NT-pro-BNP: N-terminal pro B-type natriuretic peptide.