

## Supplementary material

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*Mól N, Olchawa-Czech A, Szymońska I, et al. Risk factors of cardiac insufficiency in children with multisystem inflammatory syndrome in children associated with COVID-19: a prospective cohort study. Kardiol Pol. 2021.*

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**Table S1.** Centers for Disease Control and Prevention criteria for clinical diagnosis of MIS-C [5]

Age	<21 years
Fever	≥38°C for ≥24 hours  OR  Subjective fever ≥24 hours
Clinical symptoms	— Severe illness (hospitalized) AND  — ≥2 organ systems involved
Inflammation	Laboratory evidence of inflammation not limited to 1 or more of the following:  ↑CRP  ↑ESR  ↑Fibrinogen  ↑Procalcitonin  ↑D-dimer  ↑Ferritin  ↑LDH  ↑IL-6  Neutrophilia  Lymphopenia  Hypoalbuminemia

Link to SARS-CoV-2	<p>Current or recent:</p> <ul style="list-style-type: none"> <li>— Positive PCR</li> <li>— Positive serology</li> <li>— Positive antigen test</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>— COVID-19 exposure within prior 4 weeks</li> </ul>
Exclusion	Alternative diagnosis

Abbreviations: COVID-19, Coronavirus 2019; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; IL, interleukin; LDH, lactate dehydrogenase; PCR, polymerase chain reaction

**Table S2.** The clinical characteristic of the studied groups

	Cardiac dysfunction group (n = 20)	Non-cardiac dysfunction group (n = 46)	<i>P</i> -value
Age, months; median	86 (61–137)	74 (27–124)	0.16 <sup>a</sup>
Female, n	21 (46)	6 (30)	0.25 <sup>b</sup>
Fever before admission, days; median	5 (4–5)	4 (3–6)	0.52 <sup>a</sup>
Conjunctivitis (non-exudative), n	19 (95)	32 (77)	0.047 <sup>b</sup>
Rash (polymorphous non-vesicular), n	16 (80)	35 (78)	0.96 <sup>b</sup>
Mucosal involvement (erythema or fissures, strawberry tongue), n	12 (63)	24 (53)	0.59 <sup>b</sup>
Edema (or erythema of hands or feet), n	9 (45)	15 (35)	0.58 <sup>b</sup>
GI symptoms, n	18 (90)	35 (78)	0.32 <sup>b</sup>
Positive antibodies anti-SARS CoV-2, n	16 (80)	38 (86)	0.71 <sup>b</sup>
Positive SARS CoV-2 PCR test, n	2 (10)	5 (11)	1.0 <sup>b</sup>

Confirmed SARS CoV-2 infection in the patient's past history or confirmed SARS CoV-2 infection in the family, n	9 (45)	22 (49)	0.8 <sup>b</sup>
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<sup>a</sup>P-value for U Mann–Whitney test; <sup>b</sup>P value for Fisher exact test.

Data are presented as number (percentage) of patients or median (IQR).

Abbreviations: GI, IQR, interquartile range; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2

**Table S3.** Comparison of selected laboratory results between the studied groups

	Cardiac dysfunction group (n = 20)	Non-cardiac dysfunction group (n = 46)	P-value <sup>a</sup>
CRP, mg/l	200 (155–239)	75 (50–174)	<0.001
PCT, ng/ml	4.52 (3.1–24.37)	1.86 (0.47–3.03)	<0.001
WBC, 10 <sup>3</sup> /ul	10.1 (6.3–13.1)	10.7 (7.9–13.3)	0.49
% neutrophiles	85 (78–88)	75 (59–87)	0.03
% lymphocytes	8.3 (6.4–14.8)	13.7 (8–30)	0.03
Albumin, g/l	29.4 (25.2–33)	34.7 (30.3–38.7)	<0.001
Serum Na, mmol/l	131 (129–134)	135 (132–138)	0.003
Troponin T, ng/l	22.1 (11.4–34.6)	8.5 (5.4–20.8)	0.06
NT proBNP, pg/ml	8169 (3159–15917)	2115 (670–5049)	<0.001
Ferritin	396 (173–773)	238 (109–426)	0.1
D-dimer	2.49 (1.09–3.64)	1.42 (0.71–2.58)	0.07
Fibrinogen	4.77 (3.88–6.01)	5.37 (4.51–6.29)	0.25

<sup>a</sup>P-value for U Mann–Whitney test.

Data are presented as median and interquartile range (IQR).

Abbreviations: CRP, C-reactive protein; NT-proBNP, N-terminal pro brain natriuretic peptide; PCT, procalcitonin; WBC, white blood cells