Introduction:
Multisystem inflammatory syndrome in children (MIS-C) related to COVID-19 is a new condition the aftermath of which is yet to be studied both in Bulgaria and globally.

Clinical manifestations of MIS-C are:
- Children and adolescents 0-19 of age
- Fever (38-40 °C), >3 days
- Skin rashes, nonsuppurative bilateral conjunctivitis
- Inflammation (CRP, ↑procalcitonin, neutrophilia, lymphopenia)
- Multi-organ dysfunction (shock, cardiac, respiratory, GIT or neurological disorder)
- Exclusion of any microbial cause
- Coagulopathy (by PT, PTT, ↑D-dimers)
- SARS-CoV-2 RT-PCR or antigen test and serology may be positive/negative, or only evidence with COVID-19.1,2

Our patient:
- 15 yrs old girl with fever – 39.5 °C, vomiting, abdominal pain for 5 days.
- Antigen and RT-PCR for COVID-19 – negative.
- Tender painful abdomen, (-) peristalsis
- Tachycardia (136/min)
- Bloomberg +/-
- Anuria

Lab results at admittance

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
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<tbody>
<tr>
<td>WBC (4.0-10.0) x10^9/L</td>
<td>11.90</td>
</tr>
<tr>
<td>Neutrophils (2.00-7.50) x10^9/L</td>
<td>10.63</td>
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<tr>
<td>Lymphocyte (1.00-4.00) x10^9/L</td>
<td>0.74</td>
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<tr>
<td>Platelet (140-440) x10^9/L</td>
<td>180</td>
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<tr>
<td>CRP (0.0-5.0) mg/L</td>
<td>187.7</td>
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<tr>
<td>Procalcitonin (&lt;0.5) ng/mL</td>
<td>22.87</td>
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<tr>
<td>Fibrinogen (2.38-4.98) g/L</td>
<td>5.50</td>
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</table>

- Abdominal US – ascites in ileocecal area and slightly enlarged of appendix.
- CT of abdomen – enlarged appendix and mesenteral lymphadenopathy.

Complicated postoperative period at PICU:
- Fever
- Hypotonia – 75/39 mmHg
- Tachycardia – 155/min
- Tachypnea - 40/min
- Photophobia, myalgias, neck rigidity
- Diarrhea
- Small pleural effusions and ascites.
- EchoCG – normal.
- Lab – ↑CRP, hypoproteinemia, hypoalbuminemia, ↑D-dimers
- Positive serology for SARS-CoV-2 – IgG – 47.4 AU/mL (<12.0 –negative; >15.0 – positive)

Outcome – complete recovery on 16th day

Discussion:
MIS-C is a clinical challenge because of the wide differential diagnosis at presentation.
In this case the acute abdomen was the main clinical feature without any skin and cardiac involvement.
The treatment of MIS-C includes high dose IVIG and/or GK.
The quick and excellent clinical response to the applied therapy supports the hypothesis of immune hyperactivity pathogenesis.

Conclusions:
MIS-C is going to be a subject of further analysis and clinical trials.
Gaining experience in the diagnosis and the treatment strategy of MIS-C, hopefully, will reduce mortality, necessity of intensive care and long-lasting complications in patients.

Disclosures: The authors have no conflicts of interests to declare.