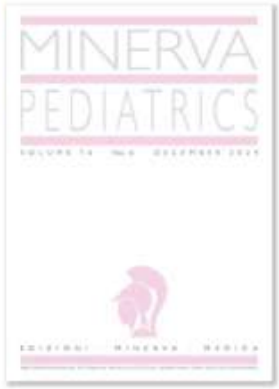

SPECIAL ARTICLE

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Multisystem inflammatory syndrome in children associated with SARS-CoV-2 infection and severe abdominal syndrome: the Lviv "OHMATDYT" (Western Ukraine) experience

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Multisystem inflammatory syndrome in children (MIS-C) associated with Severe Acute Respiratory Coronavirus 2 (SARS-CoV-2) usually develops 1-1.5 months after mild or asymptomatic COVID-19 in countries with high incidence. MIS-C has a polymorphism of clinical manifestations, which include prolonged fever, polymorphic rash, non-purulent conjunctivitis, pneumonia complicated by distress syndrome, myocarditis, coronary artery disease, toxic shock syndrome, limb edema, polyserositis, severe abdominal syndrome with diarrhea and others. Establishing this diagnosis requires significant efforts to rule out diseases of other etiology. The aim of our study was to analyze the clinical and laboratory features of children with MIS-C associated with SARS-CoV-2 and severe abdominal syndrome. Six children with MIS-C associated with SARS-CoV-2 and severe abdominal syndrome were hospitalized in Lviv Regional Children's Clinical Hospital "OHMATDYT", Ukraine, from April 2020 to September 2021. For differential diagnosis IgM, IgG to SARS-CoV-2 by ELISA, RNA to SARS-CoV-2 by PCR, bacteriological tests of blood, urine and feces were performed. Furthermore, the diagnostic work up included chest radiography, echocardiography, ultrasound of the lungs and abdominal organs. Laboratory findings revealed an increase in the normal value of inflammatory markers and high levels of IgG to SARS-CoV-2. Administration of intravenous immunoglobulin at a dose of 1 to 2 g/kg body weight per day prevented further coronary artery disease in patients and provided regression in already affected coronary arteries. At the same time, regression of abdominal syndrome was observed. Early diagnosis of MIS-C in patients with SARS-CoV-2 and severe abdominal syndrome allows to define the appropriate treatment strategy.

KEY WORDS: Pediatric multisystem inflammatory disease, COVID-19 related; COVID-19; Child; Diarrhea; Abdominal pain

top of page

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