Conflict of interest

The authors declare that they have no conflict of interest directly or indirectly related to the contents of the manuscript.

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References


Cristina Gómez Rebollo a,⁎, Estefanía Mira Padilla a, Francisco Santos Luna a,b, José Manuel Vaquero Barrios a,b

a Unidad de Gestión Clínica de Neumología, Hospital Universitario Reina Sofía, Córdoba, Spain
b Instituto Maimónides de Investigación Biomédica de Córdoba (IMIBIC), Córdoba, Spain

⁎Corresponding author.
E-mail address: crisrebollo@gmail.com (C. Gómez Rebollo).

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and hypoalbuminaemia (5.8 and 2.9 g/dl, respectively); all other clinical chemistry, including ferritin and transaminases, was normal. Empirical intravenous antibiotic therapy was started with cefotaxime at 200 mg/kg/day. After 12 h, due to worsening of signs and symptoms as well as laboratory values, he was transferred to a tertiary referral hospital with a paediatric ICU.

Serology tests were performed for SARS-CoV-2 with positive results for IgG and negative results for IgM; in addition, PCR testing was performed on a sample obtained by nasopharyngeal smear with negative results in 2 determinations 24 h apart. The results of a blood culture, a stool culture and all testing ordered for other respiratory viruses and enteric viruses were negative.

After four days of fever along with the above-mentioned signs and symptoms, a single dose of 2 g/kg of intravenous immunoglobulin (IVIG) was administered and treatment with moderate doses of acetylsalicylic acid (40 mg/kg/day) was started. Neither hydroxychloroquine nor antiviral treatment was administered. Laboratory testing showed an increase in ESR up to 51 mm, d-dimer 2476 FEU, NT-proBNP 5290 pg/ml and IL-6 180 pg/ml. It did not show significant changes in the above-mentioned parameters. A cardiological study revealed no coronary artery dilatation/aneurysms or ventricular dysfunction. An abdominal ultrasound and a chest X-ray were normal, with no evidence of consolidations or cardiomegaly.

Twenty-four hours after treatment was started, the patient presented gradual clinical improvement; his rash, oedema and conjunctival hyperaemia resolved, his vital signs normalised (heart rate 71 bpm and blood pressure 97/52 mmHg, p50) and so did his laboratory parameters, other than his platelet count, which was 579,000/l (reactive thrombocytosis).

He was hospitalised on the ward for nine days, until he completed seven days of intravenous antibiotic therapy, pending culture results and improvement in laboratory parameters. He remained stable in terms of haemodynamics and respiratory function, and did not require vasoactive or respiratory support.

In conclusion, although children usually present few symptoms, in certain cases they may develop a secondary systemic inflammatory response that requires haemodynamic and respiratory support. Nevertheless, the case reported responded satisfactorily to treatment with immunoglobulins and acetylsalicylic acid. The objective of this scientific letter is to contribute to the scientific community with the clinical information available to date, which suggests that SARS-CoV-2 may act as a trigger for systemic inflammatory response syndrome. However, more studies are needed to understand the causal relationship between the two diseases and the optimal treatment.

References


Sara M. Fernández-González *, Nerea Varela-Ferreiro,
Susana Castro Aguiar, Jerónimo José Pardo-Vázquez

Servicio de Pediatría, Complexo Hospitalario Universitario de A Coruña (CHUAC), Sergas, La Coruña, Spain

* Corresponding author.
E-mail address: sarafernandezgonz@gmail.com
(S.M. Fernández-González).

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