Methotrexate/methylprednisolone/prednisone

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Prolonged SARS-CoV-2 infection and masking of the symptoms of SARS-CoV-2 infection: case report

A 5-year-old girl developed prolonged SARS-CoV-2 infection during immunosuppressive therapy with methylprednisolone, prednisone and methotrexate for dermatomyositis. She also experienced masking of symptoms of SARS-CoV-2 infection secondary to prednisone use.

The girl, whose family tested positive for COVID-19 was admitted with her mother and brother. She also tested positive for SARS-CoV-2 infection on 28 March 2020 (day 5 of hospitalisation), but she was asymptomatic. At the beginning of March 2020, she was diagnosed with dermatomyositis and had been treated with high dose methylprednisolone 25 mg/kg followed by tapering doses of prednisone and on 10 March 2020, methotrexate injection 0.8 mg/kg per week was added [*routes not stated*]. Immunosuppressive therapy was considered to be the contributing factor to the SARS-CoV-2 infection.

Following consultation with rheumatologist, methotrexate was suspended, but the girl continued to receive prednisone at the dose of 1.5 mg/kg/day. On 11 April 2020, she still exhibited positive result for SARS-CoV-2. Her laboratory tests were normal except for a mild increase in liver transaminases and procalcitonin. Despite this, she was discharged home and was asked for strict isolation. Thereafter, on 27 April 2020 (day 35), she still tested weakly positive and on day 42 and 43, her test became eventually negative. Methotrexate was re-started and prednisone was tapered to 1.2 mg/kg/day at the end of infectious period. During review, it was noted that prednisone therapy might have partially masked the symptoms of COVID-19 and thus, she continued to remain asymptomatic throughout infection.

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