

ANTI-NMDAR AUTOIMMUNE ENCEPHALITIS IN COVID-19 PNEUMONIA PATIENT

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Abstract:

There are seven identified strains of coronavirus capable of infecting humans (HCoV). Five of these strains (229E, OC43, SARS-CoV, MERS-CoV and SARS-CoV2) can cause central nervous system disturbance through different mechanism. In the current pandemic by COVID-19 there are case reports of meningitis, encephalitis and autoimmune encephalitis associated whit SARS-CoV2 infection. We present a 16-year-old male patient with anti-NMDAr autoimmune encephalitis who presented tonic-clonic seizures, psychosis, catatonia and cognitive disturbances a month prior to admission, initially treated with high dose steroids (methylprednisolone 1 g intravenous once day during five days) and plasmapheresis (PLEX). After second PLEX, developed fever, chills, myalgia, and malaise. CT scan demonstrated unilateral subpleural nodular ground glass opacities and pulmonary consolidation in lung bases compatible with SARS-CoV2 infection. The nasopharyngeal swap sample PCR test was positive for SARS-CoV2. No respiratory compromise was observed, oxygen saturation never fell from 95% and respiratory frequency maintained normal. PLEX was suspended due to decreased platelet count to 80,000/mm, spontaneously recovered to normal after which treatment was restarted one week later to complete five session of PLEX forty-eight hours apart. Evolution was favorable. He was discharged without seizures, psychotic or catatonic symptoms and improvement in cognitive functions (MOCA test, 23 points). During follow up 2 weeks later MOCA test improved to 29 points and continued surveillance every three months. Rituximab will be started two months posterior to SARS-CoV2 infection and negative control PCR test.