

Neuroleptic Malignant Syndrome In A COVID-19 Pediatric Patient

Background

Neuroleptic malignant syndrome (NMS) is a clinical condition associated with the use of antipsychotics and drugs that affect the dopaminergic system, characterized by extrapyramidal symptoms, autonomic dysfunction. NMS during COVID-19 infection has not been previously described among children. In this report, we reported a paediatric patient who was followed up because of NMS developed during the COVID-19 infection course.

Case Report

A 12-year-old boy with cerebral palsy with COVID-19 was admitted to the paediatric intensive care unit (PICU) owing to diaphoresis, worsening respiratory status, excessive restlessness and increase in tonus. The patient was taking risperidone 3 mg/day for 5 days before admission at our centre. On follow-up, his body temperature increased to 41°C within 12 hours. Laboratory tests revealed high levels of creatinine kinase (CK; 50000 U/L). Given the clinical and laboratory results, we hypothesized that the patient developed NMS because of regular risperidone use and SARS-CoV-2 infection. We stopped risperidone, started intravenous hydration, hypothermia application and antipyretic. After this treatment modification, his body temperature started to decrease, laboratory test results were found to normalize.

Discussion

To the best of our knowledge, this is the first reported paediatric case of NMS in COVID-19. The risk factors for our patient included regular neuroleptic use and SARS-CoV-2 infection, which may have predisposed him to NMS.

Conclusion

In conclusion, NMS should be considered in paediatric patients with risk factors. Its association with COVID-19 and medications used to treat COVID-19 requires further study.

Biography

Dicle Sener Okur was born at 1980 in Ankara, Turkey. She has graduated from Ege University Faculty of Medicine at 2004, between 2004-2010 worked in Istanbul University, Istanbul Faculty of Medicine, Department of Pediatrics. In 2014, she has graduated from Istanbul University, Cerrahpasa Faculty of Medicine, Department of Pediatrics as Pediatric Infectious Diseases specialist.

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