A case of male anti-NMDA receptor encephalitis

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An 18 year old Chinese gentleman was admitted for seizure-like syncope attack with general anxiety symptoms. He was subsequently readmitted for twitching of the face, with fluctuating behavioral changes. Patient had fluctuating behavioral changes noticed while he was in the ward. He was found to have seizure-like behavior, where he had tonic-clonic movement of all 4 limbs, as well as arching of the body backwards, lasted for a few minutes. He had violent behavior intermittently while in the ward, shouting and screaming on the bed, walking out of the ward and kicking the bed in his room. Patient's mental status had been fluctuating throughout the stay; at times able to recognize family; generally not oriented to time, place and person. His symptoms varied from tremors of hand and feet; stiffening of upper limb and trunk, as well as twitching of mouth. The patient was investigated for encephalitis registry. Lumbar puncture was performed which showed normal CSF protein with mild pleocytosis (WBC 8, RBC 0, Protein 0.37). His CSF fluid was sent for TB, HSV DNA, VZV DNA, CMV DNA which all yielded negative results. Autoimmune markers were tested (ANA, Anti-ds DNA, ENA Profile, Anti-GAD Ab) which were all negative. Paraneoplastic anti-neuronal antibodies were negative. Serum and CSF were sent for anti-NMDA receptor antibody. Metabolic screen inclusive of CSF lactate, liver function test, infective markers were all unremarkable. First sample of CSF for anti-NMDA re-ceptor antibody was indeterminate. Lumbar puncture was repeated 1 week later, which showed anti-NMDA receptor antibody positive. His CT Brain was non-conclusive. MRI Brain showed left hippocampal volume loss with no significant signal changes. EEG was normal. CT Chest, abdomen and pelvis was done to look for possible source of underlying malignancy, which showed normal findings. Ultrasound thyroid and ultrasound scrotum were performed, which were normal as well. Patient was given intravenous immunoglobulin (IVIG) and intravenous methylprednisolone, completed total of 4 days for each of the medication. Intravenous Rituxinab was given in view of non-response to IVIG and methylprednisolone. The patient's behavior gradually improved back to his baseline prior to discharge. He was discharged well with no requirement of further oral immunosuppressant, and was followed up as outpatient clinic. Patient was able to function back to normal and undergo normal life as before.

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