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idiopathic forms. We will specify the location: anterior, posterior or on the whole nerve as well as the correlation with the causal condition.

**Conclusion(s):** The management of ION and its prognosis depend on the aetiology and the earliness of the treatment. NMO dominates the causes in our series. The lesions observed on MRI centred on the optic nerve and their extents constitute an additional argument, helping the etiological research.

doi: 10.1016/j.msard.2022.103610

**A Child with Intractable Vomiting: Brainstem Mass or Neuromyelitis Optica Spectrum Disorder**

Roshanak Mehdipour a,b, Vahid Shaygannejad a,b

*a Isfahan University of Medical Sciences, Isfahan, Iran
b Isfahan Neuroscience Research Center, Isfahan, Iran*

**Background:** Neuromyelitis Optica Spectrum Disorder (NMOSD) is an immune-mediated disorder which is characterized by relapsing episodes of optic neuritis and myelitis. Brain stem related symptoms such as Intractable vomiting are not usually considered as the initial presentation and misdiagnosis has been frequently observed. Almost 4% of NMOSD cases are pediatric. Early differentiation of NMOSD from other childhood disorders including acute disseminated encephalomyelitis (ADEM), multiple sclerosis (MS), infections and mass lesions is critical.

**Material(s) and Method(s):** 11 years old girl presented with intractable vomiting and received several types of gastrointestinal treatments during one month. After that diplopia occurred and also she suffered vertigo. In this stage Brain MRI showed isolated edematous intramedullary lesion with heterogeneous enhancement. Patient received corticosteroid therapy with diagnosis of brain stem mass and the symptoms improved. She was candidate for biopsy to decide for radiation or chemotherapy but her parents didn’t accept. After three months she developed central facial nerve palsy, the brain MRI showed the same lesion. Anti AQP4 ab was positive, so the appropriate treatment started with final diagnosis of NMOSD.

**Discussion:** Only about 30% of patients presents with brainstem involvement. It is difficult to diagnosis of NMOSD with presentation of acute brainstem or cerebral or diencephalic syndromes for physicians who are not familiar with its clinical features and diagnostic criteria. Involvement of the area postrema can lead to the initial presentation of sometimes intractable nausea and vomiting with associated intramedullary lesions on MRI in 16% to 43% of patients.

**Conclusion(s):** NMOSD should be considered in differential diagnosis of isolated brain stem lesions to avoid from invasive surgical interventions. Early diagnosis is critical for proper treatment.

doi: 10.1016/j.msard.2022.103611

**The Psychological Effect of COVID19 Pandemic on Neuromyelitis Optica Spectrum Disorder Patients and Their Attitude Change After a Year of the Pandemic in Isfahan, Iran.**

Roshanak Mehdipour Dastjerdi, Fereshteh Ashtari

*Isfahan University of Medical Sciences, Isfahan, Iran*

**Background:** Coronavirus 2019 (COVID19) is a new coronavirus which has created a pandemic since early 2020. Neuromyelitis Optica Spectrum Disorder (NMOSD) patients are more affected by psychological effects of COVID19 pandemic such as anxiety and fear because they may be worried about being infected by COVID19 (due to the nature of disease and treatment by immunosuppressant drugs) and also they are concerned about their treatment protocol and disease relapses during the pandemic.

**Material(s) and Method(s):** The aim of study was to evaluate the anxiety due to COVID19 infection, 3 and 12 months after beginning of pandemic in Iran. The study was performed in patients of NMOSD Cohort Clinic of Kashani hospital, Isfahan. We first asked individuals if they were anxious or afraid of the pandemic subjectively. To investigate the objective level of anxiety, Hospital Anxiety and Depression Scale (HADS-A) questionnaire was filled. Moreover, we asked them about respecting general cautions and sanitary protocols to prevent COVID19 infection.

**Result(s):** Study included 120 patients (96 female) with mean age of 36.37±9.69 and mean duration of disease about 8.49±5.35 years. A total of 96 cases (80%) experienced anxiety during the first 3 months of pandemic. The point is that their level of anxiety decreased significantly with the prolongation of pandemic after 9 months and just 66 patients (55%) showed anxiety subjectively on the second survey. Based on HADS-A score, 92 patients (76.66%) were anxious on the third month while after one year of epidemic 70 cases (58.33%) showed anxiety. Respecting preventive measures increased in the same period.

**Conclusion(s):** Along with the COVID19 pandemic prolongation, the level of anxiety had decreased gradually while the level of alertness and attention was almost high. It should be considered that this awareness must be preserved till the end of pandemic.

doi: 10.1016/j.msard.2022.103612

**NMOSD: How Long to Treat**

Rajarshi Chakraborty

*King George Medical University, Lucknow, India*

**Introduction:** Neuromyelitis optica spectrum disorder (NMOSD) is a debilitatively relapsing autoimmune neurological disorder affecting young adults. With the advent of steroids, plasma exchange and immunomodulator therapy, the course of the disorder can be controlled up to a comprehensive extent. But the real question is: how long?

**Material(s) and Method(s):** This case report present a 27-year-old lady suffering from neuromyelitis optica spectrum disorder, relapsing after 8 years of disease onset, just 15 days after stopping azathioprine therapy. This 27 year old vegan, unmarried, non-smoker, non-diabetic lady was diagnosed as neuromyelitis optica spectrum disorder for last 8 years presenting with weakness of both lower limbs along with bladder symptoms and blurring of vision in both eyes for 2 days. She had longitudinally extensive transverse myelitis from thoracic spinal cord d5 to lumbar spinal cord l5 levels and prolonged visual evoked potentials bilaterally. She was found negative for anti-aquaporin antibody and myelin oligodendrocyte glycoprotein antibody. She was treated with pulse dose methyl prednisolone followed by oral steroids with azathioprine initially for 3 months with subsequent monotherapy with azathioprine. She was improving gradually and within 5 years, she attained a modified rankin score score of 0 from an initial score of 4. She took the immunomodulator drug for another 3 years and then stopped from herself after which she developed dense paraplegia with bowel and bladder involvement along with altered mentation.

**Result(s):** Patient was diagnosed with relapse of neuromyelitis optica spectrum disorder with involvement of spinal cord and brain axes. She was treated with standard pulse steroids with plasma exchange therapy followed by immunomodulator therapy but recovery was poor with modified rankin score of 4 remaining unchanged.

**Conclusion(s):** NMOSD has an unpredictable time course of relapse. The debilitative nature of the subsequent relapse(s) in this disorder is very grave. The need for standardisation of lifelong therapy with immunomodulatory agents in neuromyelitis optica spectrum disorder can prudentialise prevention of catastrophic neurological outcome.

doi: 10.1016/j.msard.2022.103613