10 Year Old Girl with Neuromyelitis Optica (Devic's Disease) Spectrum Disorder and Neuromuscular Scoliosis on Tociluzimab Therapy with Multiple Relapses

Kallol K Set, MD
Department of Pediatric Neurology, Wayne State University, USA
Email: Kset@dmc.org

Images

Figure 1: Increased T2/FLAIR signal into periventricular white matter, periatral white matter, right temporal lobe, right parietal lobe, the right corona radiata, and right centrum semiovale
**Figure 2:** Within the brainstem and posterior fossa there are stable T2/FLAIR hyperintense lesion in the left cerebellar peduncle and left pons as well as increased conspicuity of the lesion in the right medulla.

**Figure 3:** Diffuse optic nerve atrophy with slight increased T2/FLAIR signal in the remaining optic nerve fibers on the right.
**Figure 4:** The corpus callosum is extremely abnormal, demonstrating diffuse cystic changes and progressive thinning.

**Figure 5:** Patchy hyperintense T2 signal from the level of C3-T11 consistent with known demyelination with interval development of new enhancement from the level of C5-T1 consistent with active inflammation.
Images Description

10 year old girl with low back pain, lower and upper extremity weakness and pain, blindness, difficulty with chewing and swallowing diagnosed at 6 years of age with Optic neuritis and myelitis associated with distinct brain MRI lesions typical of NMO spectrum disorder (i.e. with involvement of right cerebellar peduncle, right basal ganglia extending into the right thalamus, right periatrial white matter, paraventricular white matter, coronal radiata, centrum semiovale, temporal lobe, and parietal lobe on T2 images) and Neuromuscular scoliosis. Had many hospitalizations for frequent relapse managed with IV steroid, IVIG, Plasmapheresis and Rituximab in the past with continued progression. Since 8 years of age, she has been on monthly infusion of Tocilizumab (Interferon 6 receptor blocker) with decreased frequency of relapses.