Abstract

Neuromyelitis optica spectrum disorder (NMOSD) is an autoimmune disorder characterized by significant demyelination in the optic nerve and spinal cord. The typical clinical features include acute optic neuritis and transverse myelitis, which may occur together or at different times and it is linked to the presence of AQP4-IgG antibodies in the serum(1). The prevalent presentation of the condition is in its polyphasic form (90%), where it typically manifests as optic neuritis, myelitis, or a combination of both. On the other hand, the monophasic form, which involves only a single episode of these symptoms, has been observed in a smaller proportion, accounting for approximately 10% of cases.(1)This case report describes theclinical presentation, diagnosis, and management of a 20-year-old male patient withacute urinary retention,lower back pain, and progressive neurological symptoms, including tingling sensations, limb weakness, and sensory level progression. The patient was diagnosed with NMOSD based on the presence of typical neuroimaging findings and later positive aquaporin-4 (AQP4) antibodies, which are specific to NMOSD. The patient was managed with intravenous methylprednisolone and intravenous immunoglobulin (IV Ig) but did not show significant improvement. Plasma exchange was then initiated, leading to significant improvement in limb power. Further treatment involved long-term immunotherapy, including

mycophenolate mofetil, to reduce the risk of relapse. The patient was commenced on physiotherapy and also assessed by the psychiatric team.

This case highlights the importance of considering NMOSD in patients presenting with acute urinary retention and neurological symptoms. Early diagnosis and appropriate management, including immunotherapy, can lead to significant recovery in patients with NMOSD. However, it also indicates that prompt intervention with plasma exchange and long-term immunotherapy may be necessary in some cases to achieve optimal outcomes