Seronegative neuromyelitis optica spectrum disorders, challenges in diagnosis and management, a case report

D. Apostolopoulos[1], M. Tiet, J. George
[1]Neurology, University Hospitals Of Leicester, UK

24 year old female presented with few days history of pins and needles on her right toes and bilaterally on her fingers. She has background of chronic back pain and anxiety depression. A week later she presented to A+E with severe back pain and weakness on her right leg and left arm. A+E performed and assessment and she was reassured that her symptoms did not appear to be organic so she was discharged. Two weeks after the initial complaint she presented with severe weakness of her right leg, left arm and urinary retention. She was admitted and despite the rapid progression of her symptoms she appeared to have a functional element that made the diagnosis challenging. Two days later, after the presentation in the acute neurology ward she had progressed to being tetraplegic, with hard signs suggestive of spasticity. The MRI of her neuroaxis depicted extensive transverse myelitis sparing the brain. She was treated with intravenous methylprednislone on the presumption that this is neuromyelitis optica but she did not show any signs of improvement. Her AQP4 and MOG antibodies returned negative but we endeavoured to treat her with plasma exchange. After the third plasma exchange she demonstrated signs of recovery on her upper limbs and after completion of the immunotherapy she started showing some improvement on the lower limbs as well. This very didactic case demonstrates the challenges that can be faced when there is a significant functional overlay and no serological confirmation, furthermore it depicts the dilemmas in treating immunoinflammatory conditions of uncertain aetiology.