

## **Interstitial Cystitis Associated with Neuromyelitis Optica**

**Introduction and Objectives:** A 54-y.-old lady, complaining of urinary retention was admitted 4 months ago. Her symptoms had steadily progressed since two weeks before her admission, and she had lower limbs weakness simultaneously. Gradually her weakness and urinary problem had been worsened, and then bilateral visual decrement was added. In the neurologic examination she had decrement of visual acuity dominantly in left eye and paraparesis and she had a force of 4/5 in the right proximal of the upper limb, and 3/5 in proximal of the lower limb. Deep tendon reflexes (DTRS) were hypoactive, and planter reflexes of the right side were extensor, and the left side was neuter. Other neurologic examinations were normal.

**Materials and Methods:** According to the patient's clinical features, neurologic exam and paraclinic evaluation, neuromyelitis optica (Devic's syndrome) was propounded. Methyl prednisolone succinate (1gr/day) was injected for 5 days, and then plasmapheresis (3 liters, every other day) for 5 times was performed simultaneously, intravesical injection of dimethyl sulfoxide (DMSO) 60cc / weekly, oral bethanechol chloride 10 mg/8hrs and clean intermittent catheterization, were administered. She had a significant improvement of vision, paraparesis, and urinary retention; then prednisone 1mg/kg, and azathioprine 2-3 mg/kg started. During the passed months, prednisone has tapered, and azathioprine 150 mg/day was taken. Her symptoms and signs declined; after the 6th intravesical injection, no subjective urinary complaints was recorded and cystoscopic examination showed no residual, but mild trabeculation. In VEP, P100 latencies 116.4 and 130.2 on right and left eyes, respectively.

**Results:** Treatment: Intravenous corticosteroids are wildly employed as the first- line treatment of ON and myelitis attacks; a common protocol was called for 5 consecutive days. If the attack does not promptly respond to corticosteroid, plasmapheresis should be considered. The current standard preventative approach includes azathioprine (2-3 mg/kg daily) in combination with oral prednisone (1mg/kg/d).

**Conclusions:** This patient had irritative symptoms of bladder followed by urinary retention with neurological symptoms. In the first view, it seemed that the irritative symptoms of bladder are results of Devic's syndrome but after cystoscopy and mucosal biopsy, IC was diagnosed and after treatment with DMSO, the symptoms improved. To our knowledge, this is the first report of IC which accompanies Devic's syndrome. This combination intended that patients with neurological and irritative symptoms of bladder whose diagnosis is MNO should be checked for IC.