

## **A case of acute ophthalmoplegia without ataxia associated with anti gd1b igg antibody**

**Y Shin<sup>1</sup>, H Ree<sup>2</sup>**

<sup>1</sup>*Department of Neurology, Kyung Hee University Hospital at Gangdong, South Korea*

<sup>2</sup>*Department of Neurology, Kyung Hee University Hospital at Gangdong, South Korea*

It is known that acute ophthalmoplegia without ataxia was reported to be mostly elevated anti-GQ1b antibody titer. It is very rare that anti-GQ1b antibody is negative but another ganglioside antibody-positive such as anti-GM1b, GD1b antibodies. In previous cases, high anti GM1 antibody alone or GM1, GD1a and GD1b antibodies in acute ophthalmoplegia without ataxia were reported. We reported case that only elevated anti GD1b antibody titer in acute ophthalmoplegia without ataxia. A 53-year-old male presented ptosis of the left eye with progression of the ptosis in both eyes 2 weeks ago admission to our department of neurology. On the next day of admission, he presented bilateral ophthalmoplegia. Pupil light reflex, deep tendon reflex were normal and ataxia were absent. Other neurologic examination were unremarkable. Brain MRI showed no ischemic or hemorrhagic lesions and nerve conduction test and anti acetylcholine receptor antibody test were normal. In cerebrospinal fluid analysis, protein was elevated (82.0 mg / dl) and other index were unremarkable. The oligoclonal band was negative and thyroid function tests was normal. Anti-GD1b IgG antibody titer was increased mildly to 38.62 (normal value 30) but other anti ganglioside antibodies were normal ranges. He was given intravenous methylprednisolone 1g/day for 7days and oral prednisolone tapered. After 1 month, ophthalmoplegia and ptosis were undergoing some improvement without ataxia or areflexia. We experienced rare case of acute ophthalmoplegia associated with isolated elevated anti GD1b antibody titer. Further researches for correlation of ophthalmoplegia with antiganglioside antibody other than anti GQ1b antibody.