Ptosis and diplopia as initial manifestation of Guillain-Barré syndrome

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Abstract
In this case report a 58-year-old Guillain-Barré syndrome patient in India presents with ptosis and diplopia. Cranial nerve examination revealed bilateral restricted abduction and ptosis as shown in the associated video clip.

Oculomotor weakness in Guillain-Barré syndrome (GBS) is uncommon. Rarely patients of GBS have been described with severe ptosis. We describe a patient of GBS who presented with ptosis and diplopia.

Case report
A 58-year-old gentleman presented with ptosis of both eyes and diplopia for 3 days and quadriplegia with dysphagia for 2 days. His symptoms worsened rapidly and was admitted in neurology intensive care unit. There was no history of snake bite.

On examination he was afebrile, pulse rate was 76/minute, blood pressure was 126/80 mmHg and there was no autonomic dysfunction. He was conscious and obeying to commands. Cranial nerve examination revealed bilateral restricted abduction and ptosis (see Figure 1 video). Pupils were normal. Motor power was grade 2/5 (MRC scale) in upper limbs and grade 3/5 in lower limbs. All deep tendon reflexes were absent. Nerve conduction study was suggestive of acute inflammatory demyelinating polyneuropathy.

Cerebrospinal fluid examination revealed cytoalbuminological dissociation (no cell, protein 161 mg/dl). Anti Gq 1b antibody was negative. Repetitive nerve stimulation and Tensilon tests were normal. Magnetic resonance imaging of brain was normal. Patient was given intravenous immunoglobulin for 5 days (0.4 gm/kg/day). He started improving by day 16 of his illness. His ptosis improved and quadriplegia also recovered. He was discharged on day 23 of admission. He recovered fully in 6 weeks.

Discussion
Clinical course, nerve conduction study, negative anti Gq 1b antibody, negative RNS and tensilon tests, cytoalbuminological dissociation and good response to treatment are characteristic of GBS in our patient. However ptosis and diplopia as presenting
symptom is very unusual. Rarely GBS patients may have ophthalmoplegia during course of their illness.

In a study, 9.9% patients of GBS had ophthalmoplegia.\(^2\) In some patients a restricted type of pharyngeal-cervical-brachial variant of GBS is seen who does not progress.\(^3\) In another study out of 92 consecutive patients of GBS, 8 had severe ptosis without ophthalmoplegia.\(^1\) None of the patients developed other signs of oculomotor weakness. Regional variant of Guillain Barré syndrome presenting as isolated abducens nerve palsy has been reported.\(^4\)

Reason of ophthalmoplegia has been debated in GBS but it seems to be due to minor changes in intraorbital pressure leading to change in eye position.\(^5\) Ophthalmoplegia is a consistent feature of Miller Fisher syndrome which is characterised by ataxia and positive anti Gq 1b antibody. Rarely myasthenia gravis and GBS have been described in the same patient.

Autoimmunity plays an important role in both diseases due to molecular mimicry between infectious agent and self antigen.\(^6\) Common infectious agent producing cross-reacting antibodies against myelin of peripheral nerve and AChR are considered to be the cause in this condition. But in our patient negative Tensilon test and normal RNS ruled out the possibility of neuromuscular junction involvement. Cases with unilateral internal ophthalmoplegia without external ophthalmoplegia have also been described.\(^7\)

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**References:**