



A Case of Guillain-Barre' Syndrome in a Oldest-Old Woman

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Abstract

Guillain-Barré Syndrome (GBS) is an immune-mediated neuropathy characterized by limb progressive weakness, sensory symptoms, diminished or absent myotatic reflexes, and involving autonomic system. Cranial neuropathy and bulbar symptoms can be observed but less often in the old. It's the most common cause of acute peripheral neuropathy with an estimated incidence of 1.7/100000. We describe a case report of a 90-year-old woman who was admitted to our hospital complaining progressive gait disturbance since few days. She was diagnosed as Guillain-Barré Syndrome (GBS). She was treated with Intravenous Immunoglobulin (IVIg) (0.4 g/Kg body weight) and underwent motor rehabilitation with improvement of symptoms.

Introduction

Guillain-Barré Syndrome (GBS) is an immune-mediated neuropathy characterized by progressive weakness and diminished or absent myotatic reflexes. There is an aberrant response from immune system that attacks nerve tissue. This response may be triggered by surgery, immunizations, or infections [1,2]. The most common symptoms related to peripheral nerve damage are progressive motor weakness, paraesthesia, pain and bulbar involvement. Symptoms typically peak within four weeks, then plateau before resolving. The progressive weakness may compromise respiratory muscles. Diagnosis is based on clinical features, Cerebro Spinal Fluid testing (CSF), and nerve conduction studies. In GBS cerebro spinal fluid testing protein levels increase despite normal cell count. In early GBS, protein levels may be normal. There are several distinct subtypes in this syndrome: acute inflammatory demyelinating polyradiculoneuropathy (the most common subtype), acute motor axonal neuropathy, acute motor-sensory axonal neuropathy, Miller-Fisher syndrome, acute autonomic neuropathy, Bickerstaff's encephalitis.

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Case Study

A 90-year-old woman suffering from hypertension was admitted to the neurological department of our Hospital complaining progressive gait ataxia from a few days. Previously she has been ambulated independently. The patient reported that she had fever and diarrhea about two weeks before the day of hospital admission. Since one week she reported weakness at upper limbs and progressively at lower limbs and distal paraesthesia with distal limb pain. Neurological examination showed gait ataxia, distal weakness in upper and lower limbs and hyporeflexia. Brain CT scan was normal. A nerve conduction study demonstrated a motor and sensitive axonal neuropathy with prolonged F-wave latencies, decreased cMAP and SNAP amplitudes, loss of proximal H reflex responses and reduced motor and sensory amplitudes [3]. CSF study didn't show cytoalbuminogic dissociation. Acute spinal cord disease, hepatic porphyrias, paraneoplastic neuropathy, infections HIV, VZV, CMV and drug induced neuropathy were escluded. She was diagnosed as GBS and treated with Intravenous Immunoglobulin (IVIg) (0.4 g/Kg body weight repeated for five consecutive days) with improvement of symptoms without progression to respiratory muscle weakness (respiratory muscle strenght testing, measuring forced vital capacity, was normal). Randomized controlled trials have demonstrated efficacy of Intravenous Immunoglobulin (IVIg) given to patients with GBS, specifically reducing residual disability and duration of ventilation [4].

Discussion

We described a 90 year old woman with GBS that was admitted in our Hospital and this could be the first case described in Sicily. In letterature few cases are described in oldest-old, one in Japan and one in Australia [5,6]. In our case we didn't found cytoalbuminogic dissociation; CSF study may be normal within one week of onset. During hospitalization, the patient, was treated with

Intravenous Immunoglobulin (IVIg) (0.4 g/Kg body weight repeated for five consecutive days), without complications, and underwent motor rehabilitation with improvement of muscle strength, especially to the hands. Muscle weakness was evaluated by the MRC sum score of 6 bilateral muscles in arms and legs, ranging from 0 (tetraparalytic) to 60 (normal strength). MRC at hospitalization was 51, to hospital discharge was 56. In a study was reported that severe disability and mortality at nadir was more common in old compared to young patients [7]. In another retrospective study emerges that Guillain-Barré syndrome in the old not have a significantly worse prognosis than in younger patients [8,9].

Conclusion

GBS syndrome in the oldest is not frequently reported. It's underdiagnosed probably due to reduced immune response in these patients. The lower incidence of GBS in older age patients may reflect a survivor bias, in which individuals surviving into their 80s and 90s are less likely to develop GBS, although there is no substantiated biological basis for this hypothesis. Further study are needed to evaluate the incidence, clinical features and prognosis in the oldest-old patients with GBS.

References

1. Kennedy RH, Danielson MA, Mulder DW, Kurland LT. Guillain-Barré syndrome: a 42-year epidemiologic and clinical study. *Mayo Clin Proc.* 1978;53(2):93-9.
2. Walling AD, Dickson G. Guillain-Barré syndrome. *Am Fam Physician.* 2013;87(3):191-7.
3. Hiraga A, Kuwabara S, Ogawara K, Misawa S, Kanesaka T, Koga M, et al. Patterns and serial changes in electrodiagnostic abnormalities of axonal Guillain-Barré syndrome. *Neurology.* 2005;64(5):856-60.
4. Hughes RA, Swan AV, Raphaël JC, Annane D, van Koningsveld R, van Doorn PA. Immunotherapy for Guillain-Barré syndrome: a systematic review. *Brain.* 2007;130(9):2245-57.
5. Leung SS. Guillain-Barré syndrome in elderly people. *J Am Geriatr Soc.* 2008;56(2):381-2.
6. Takayoshi H, Nakadera Y, Nakagawa T, Kadota K, Abe S, Mitaki S, et al. A case of Guillain-Barre syndrome in the oldest. *Nihon Ronen Igakkai Zasshi.* 2015;52(4):425-8.
7. Peric S, Berisavac I, Stojiljkovic Tamas O, Rajic S, Babic M, Cvijanovic M. Guillain-Barré syndrome in the elderly. *J Peripher Nerv Syst.* 2016;21(2):105-10.
8. Sridharan GV, Tallis RC, Gautam PC. Guillain-Barré syndrome in the elderly. A retrospective comparative study. *Gerontology.* 1993;39(3):170-5.
9. Sejvar JJ, Baughman AL, Wise M, Morgan OW. Population incidence of Guillain-Barré syndrome: a systematic review and meta-analysis. *Neuroepidemiology.* 2011;36(2):123-33.