

Is There A Role Of Steroids In IVIG Failed Cases Of Guillain Barre Syndrome?

P Sethi, R Thukral, N Sethi, J Torgovnick

Citation

P Sethi, R Thukral, N Sethi, J Torgovnick. *Is There A Role Of Steroids In IVIG Failed Cases Of Guillain Barre Syndrome?*. The Internet Journal of Neurology. 2005 Volume 5 Number 2.

Abstract

A-42-year old man presented with progressive difficulty in walking and climbing stairs for past 2 days, weak handgrip and inability to raise arms above shoulder level for the past 1 day. He developed intermittent choking on swallowing liquids since the morning of the day of admission. We discuss here Guillain Barre Syndrome as an acute immune mediated polyneuropathy.

CASE REPORT

A-42-year old man presented with progressive difficulty in walking and climbing stairs for past 2 days, weak handgrip and inability to raise arms above shoulder level for the past 1 day. He developed intermittent choking on swallowing liquids since the morning of the day of admission. There was no history of facial asymmetry, bladder or bowel involvement. At the time of admission, he was conscious, alert and oriented, afebrile, PR=70/min and BP=130/76 mm Hg with no postural drop. CNS examination revealed a hypophonic speech, bilateral sluggish gag and palatal reflexes, generalized hypotonia, weak neck and abdominal muscles. Power was 2/5 MRC grade in upper limbs with markedly weak grip bilaterally and 4/5 in the lower limbs with absent deep tendon reflexes and bilateral flexor plantars. Tactile sensation was impaired by 10-15% in hands and feet. CSF showed 2 WBC (100% lymphocytes), glucose=52mg/dl and protein=66mg/dl.

A clinical diagnosis of AIDP was made and patient initiated on IVIG immediately after admission. However, next day he was found to have bilateral facial weakness, R>L. On the third day of IVIG he complained of an increase in choking episodes and motor power in the lower limbs had decreased to 3/5. A Ryles tube was inserted for feeding and patient made nil per orally. On day 4 he developed mild difficulty in breathing with a respiratory rate of 24/min, a clinically clear chest and a normal chest X-ray. FVC decreased from 3L at the time of admission to 2.1 L. In view of progressive deterioration and impending respiratory failure despite IVIG therapy he was started on intravenous methylprednisolone, 1000mg Q day. On the very next day his breathlessness

decreased and he reported a subjective increase in strength in all four limbs. Over the next 24 hours an objective increase in lower limb power to 4/5 and an increase in hand grip bilaterally was found. Over following 3-4 days he was able to accept liquids and solids orally without choking. He showed consistent improvement and was discharged after a stay of nearly a month in the hospital. At the time of discharge he was able to walk without support and had good handgrip bilaterally.

DISCUSSION

Guillain Barre Syndrome is an acute immune mediated polyneuropathy. Although most patients begin to recover spontaneously within 2 weeks after maximum weakness is reached, symptoms which range from fatigue to complete paralysis may persist in some cases ^{1,2}.

Several conflicting reports have been published regarding role of steroids in AIDP. One study revealed beneficial effect of a combination of IVIG with methylprednisolone while another recently published study refuted any beneficial effect of addition of methylprednisolone to IVIG ^{3, 4, 5}.

In our patient, nerve conduction studies done on the second day after admission, that is day 3 of illness revealed absent H reflex, prolonged F wave latency and distal latencies, decreased CMAP amplitude in all motor nerves, absent bilateral median and ulnar sensory conduction velocities and normal sural nerve response. It also showed slowed motor conduction velocities and conduction blocks. These latter findings which are only seen in 10-20% of GBS patients early after onset of illness are however one of the important diagnostic criteria of CIDP an illness closely related to AIDP

which shows a beneficial response to steroids. Hence it seems that a subset of patients who reveal these findings on NCS early in the course of illness may be the ones showing a beneficial response to steroids, specially a synergistic effect when used with IVIG₆. Further we suggest that steroids may be tried in IVIG failed cases of GBS who continue to progress rapidly.

CORRESPONDENCE TO

Nitin. K. Sethi, M.D. Chief Resident, Neurology Saint Vincent's Hospital and Medical Center 153 West, 11th Street New York, NY 10011 Email: sethinitinmd@hotmail.com

References

1. Merkies IS, Schimtz PI, Samijn JP. Vander meche FG,

Van Doorn PA. Fatigue in immune mediated polyneuropathies. *Neurology* 1999; 53:1648-54.
2. De Jager AEJ, Minderhoud JM. Residual signs in severe GBS: Analysis of 57 patients. *J neurol Sci.*1991; 104.
3. Hughes RAC, van der Meché FGA. Corticosteroid Treatment for Guillain-Barré Syndrome (Cochrane Review). Oxford, Update Software, 1999.
4. Anonymous. Double-blind trial of intravenous methylprednisolone in Guillain-Barré syndrome: Guillain-Barré Syndrome Steroid Trial Group. *Lancet*1993; 341:586-90
5. Swick HM, McQuillen MP. The use of steroids in the treatment of idiopathic polyneuritis. *Neurology*1976; 26:205-12.
6. Van Koningsveld R, van der Meché FGA, Schmitz PI, Van Doorn PA. Combined therapy of intravenous immunoglobulin and methylprednisolone in patients with Guillain-Barré syndrome: the results of a multicentre double blind placebo controlled clinical trial. *Peripher Nerv Syst*2001; 6:186-7.

Author Information

Prahlad K. Sethi, M.D.

Department of Neurology, Sir Ganga Ram Hospital

Reena Thukral, M.D.

Department of Neurology, Sir Ganga Ram Hospital

Nitin K. Sethi, M.D.

Department of Neurology, Sir Ganga Ram Hospital

Josh Torgovnick, M.D.

Saint Vincent's Hospital and Medical Center