

## Diabetes-associated demyelinating polyneuropathy successfully treated with intravenous immunoglobulin

Intravenous immunoglobulin successfully treated patients with diabetes-related chronic inflammatory demyelinating polyneuropathy (DM-CIDP), according to authors of a report in the *Archives of Neurology*.

Evidence is growing that diabetes-associated CIDP shares many features with idiopathic CIDP. One of the standard therapies for idiopathic CIDP is intravenous immunoglobulin (IVIg). Therefore, K.R. Sharma and colleagues at the University of Miami School of Medicine treated DM-CIDP patients with IVIg to determine its efficacy.

In this prospective nonblinded trial, 25 patients, age 40 to 80 years (average 64 years), with type 2 diabetes and neuropathy that met the diagnostic criteria for CIDP, and 1 patient without diabetes, received daily IVIg (400 mg/kg body weight) for 5 days. A Neuropathy Impairment Score was obtained for each patient at baseline and again 4 weeks after the start of therapy.

A significant decrease from baseline in Neuropathy Impairment Score occurred by the 4-week follow-up (61.5 at baseline vs. 33.0 at 4 weeks;  $p < 0.001$ ), indicating substantial improvement in the condition of 21 of the 26 patients (Diabetic demyelinating polyneuropathy responsive to intravenous immunoglobulin therapy. *Archives of Neurology*, 2002; 59(5): 751-757).

Patients who experienced conduction block were significantly more likely to show an improvement in Neuropathy Impairment Score: all 11 of the 11 patients who experienced conduction block showed an improvement the score, while only 10 of the 15 patients who did not have conduction block demonstrated improvement ( $p = 0.03$ ).

Treatment side effects were relatively minor and included reversible kidney dysfunction (3 cases), flu symptoms (5 cases), headache (5 cases), and chest pain with shortness of breath (1 case).

Sharma and colleagues concluded, "Although IVIg therapy seemed to improve DM-CIDP in this uncontrolled trial, a controlled trial is required for confirmation of our findings."

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Key points reported in this study include:

\* Patients with diabetes-associated chronic inflammatory demyelinating polyneuropathy (DM-CIDP) improved significantly after treatment with intravenous immunoglobulin (IVIg)

\* Improvement in Neuropathy Impairment Score was significantly more likely for patients who experienced conduction block

\* Side effects of IVIg treatment included flu-like symptoms, headache, reversible renal dysfunction, and chest pain This article was prepared by Pain & Central Nervous System Week editors from staff and other reports

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| <b>Start:</b> Depart Start on W Crescent Ave (East) | 0.2 | < 1min |
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| <b>1:</b> Turn RIGHT (South) onto N Euclid St  | 0.2            | 0:01                |
| <b>2:</b> Take Ramp (LEFT) onto I-5 [Santa Ana Fwy] (I-5)  | 88.0           | 1:14                |
| <b>3:</b> Construction in Santa Ana (SB) (September 30, 2003 - October 15, 2004)                           | < 0.1          | < 1min              |
| <b>4:</b> Construction between Dana Point and San Juan Capistrano (SB) (March 29, 2002 - January 28, 2005) | < 0.1          | < 1min              |
| <b>5:</b> At exit 23, turn RIGHT onto Ramp (CA-274 / Balboa Ave / Garnet Ave)                              | 0.2            | < 1min              |
| <b>6:</b> Bear RIGHT (South) onto Mission Bay Dr   | 0.2            | < 1min              |
| <b>7:</b> Turn RIGHT (West) onto Garnet Ave  | 0.5            | 0:01                |
| <b>8:</b> Keep STRAIGHT onto Balboa Ave  | 0.2            | < 1min              |
| <b>9:</b> Turn LEFT (South) onto Olney St  | < 0.1          | 0:01                |
| <b>End:</b> Arrive End   | < 0.1          | < 1min              |
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