Some Foot Neuropathy Responds to Nerve Surgery

BY SHARON WORCESTER
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TAMPA — About a third of diabetic patients with foot neuropathy have pain and loss of sensation resulting from nerve compression, and these patients probably will benefit substantially from nerve decompression surgery, Dr. A. Lee Dellon said at the annual meeting of the Wound Healing Society.

Data are increasingly demonstrating the benefits of this surgery—which is much like the surgery used to treat carpal tunnel syndrome—in select patients with foot neuropathy, said Dr. Dellon, of the division of plastic surgery at Johns Hopkins University, Baltimore.

In a series of 765 patients, the ulceration rate following successful tissue reinnervation in patients with neuropathy but no prior ulceration was 0.5%, compared with an expected rate of 15% in nonsurgery patients. The rate in those with a previous ulcer that healed was 5%, compared with an expected rate of 50%. No amputations were required in the reinnervated patients.

Results for Dr. Dellon's first series of patients treated with nerve decompression for foot neuropathy were published in 1992. The site of compression was identified in the patients by a Tinel's sign, which in a more recent study was shown to have a positive predictive value of 92% for nerve compression, he noted.

In the 1992 series, outcomes in individual nerves were good to excellent in 80% of patients at an average follow-up of 2.5 years. In one recent study, restoration of sensation in patients who underwent nerve decompression for foot neuropathy was associated with a 3% ulceration recurrence rate, 80% improvement in pain, and 80% recovery of sensibility, with no new ulcers or amputations.

Patients who undergo nerve decompression surgery often have immediate results. One such patient told Dr. Dellon that her surgery, which had occurred just 24 hours prior, had already improved her pain by 50% and restored sensation to her toes.

"When nerve fibers haven't totally died, they can have a reversible ischemic block. When the nerve is decompressed and blood flows into the nerve, the nerve can conduct a transmitted impulse again," he explained, adding that about half of patients will "actually wake up with this reaction."

It takes about a year, however, for the nerve to regenerate out to the toes, Dr. Dellon noted. Ideal nerve decompression candidates are those who have neuropathy symptoms and documented neuropathy, tight glycemic control, failure to respond to neuropathic pain medications, good circulation, no edema, and a positive Tinel's sign, he said at the meeting, which was held in conjunction with a symposium on advanced wound care. ■

Sitagliptin Add-On Helps Lower HbA_{1c}

SEATTLE — Sitagliptin can be safely added to other oral diabetes medications, producing a drop in hemoglobin A_{1c} levels that averages about 0.7%, according to a report at the annual meeting of the American Association of Clinical Endocrinologists.

In one trial, when 100 mg/day sitagliptin (Januvia) was added to metformin treatment (1,500 mg or greater per day) for 24 weeks, patients with type 2 diabetes had a mean reduction in HbA_{1c} of 0.65% from a baseline mean of 8.0%.

In another trial, when sitagliptin was added to pioglitazone treatment, at a dose of 30 mg or greater per day, patients had a mean reduction in HbA_{1c} of 0.7%, from a baseline HbA_{1c} of 8.1%, Dr. Peter Stein senior director in clinical research at Merck Research Laboratories, Rahway, N.J., said in the poster presentation.

Placebo controls in the studies had no decline in mean HbA_{1c} in the group that was also on metformin, and a decline of about 0.1% in the group that was also on pioglitazone.

Of the patients in the study who were also on metformin, 18% of the patients who took sitagliptin achieved an HbA_{1c} level below 6.5%, as did 25% of those also on pioglitazone.

In the controls, only about 5% achieved an HbA_{1c} that low. The studies were funded by Merck & Co.

—Timothy F. Kirn

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