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rehabilitation regimen for non-surgical low back pain. 20 Suprascapular nerve block is similarly safe and effective for neck and shoulder pain. **References:** Fausett HJ, Warfield CA (2002). Nerve blocks: An overview. In CA Warfield, HJ Fausett, eds., *Manual of Pain Management*, 2nd ed., pp. 293–299. Philadelphia: Lippincott Williams and Wilkins.

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**Table 1** Sciatic Nerve Block for Low Back Pain

	VAS 0 $\pm$ s.d.	VAS 1 $\pm$ s.d.	VAS 4 $\pm$ s.d.
Injected	6.6 $\pm$ 2.1	3.3 $\pm$ 1.2	1.9 $\pm$ 0.7
Control	5.5 $\pm$ 1.4	3.8 $\pm$ 1.4	3.5 $\pm$ 2.1
p-value	>0.05	>0.05	<0.001

**Table 2** Suprascapular Nerve Block for Neck/Shoulder Pain

	VAS 0 $\pm$ s.d.	3	VAS 4 $\pm$ s.d.
Injected	6.9 $\pm$ 1.4	1.2 $\pm$ 0.7	0.8 $\pm$ 0.7
Control	6.3 $\pm$ 2.1	4.3 $\pm$ 0.8	2.6 $\pm$ 0.7
p-value	>0.05	<0.0001	<0.001

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### Sphenopalatine Ganglion Block in Traumatic Trigeminal Neuralgia and the Outcome to Radiosurgical Ablation

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**Introduction:** Neuropathic trigeminal pain has responded to sympathetic blockade. Sphenopalatine ganglion block may offer a better outcome compared to stellate ganglion block. This forms the basis for radiosurgical ablation of the sphenopalatine ganglion. **Methods:** Patients diagnosed with traumatic trigeminal neuralgia were treated with stellate ganglion block. If they responded, a second block was performed. If they did not have relief greater than three months, they were given a sphenopalatine ganglion block. This was repeated if there was a greater than 60% reduction in pain. Those patients who had two positive responses to sphenopalatine ganglion block were offered Gamma knife ablation, using 90 Gy delivered through two 8 mm superimposed ports. **Results:** Twenty six patients were diagnosed with traumatic trigeminal neuralgia. There were 17 females (65.3%) and 9 males (34.6%). Pain was localized to V1 in 42.3%, V2 in 42.3% and V3 in 42.3%. Seventeen patients underwent stellate ganglion blocks. Twelve out of these 17 patients (70.5%) responded to the first block

and 12/17 (70.5%) responded to the second block. The longest duration of relief was 4 months. Average duration of relief was 36 hours. Sphenopalatine ganglion blocks were performed on the 12 that responded to stellate ganglion blocks as well as 14 additional patients. All 12 patients who responded to stellate blocks also responded to two sphenopalatine ganglion blocks, and 8 of the additional 14 responded as well, with a total of 20 out of 26 responding (76.9%) to sphenopalatine ganglion blocks. Eleven patients who responded to sphenopalatine blocks underwent Gamma knife ablation. Nine out of these eleven had more than 60% reduction in pain at 6 months follow-up. **Conclusion:** Sphenopalatine ganglion block provides as much relief for traumatic trigeminal neuralgia as stellate ganglion block. Patients who respond to two sphenopalatine ganglion blocks have a favorable outcome to radiosurgical ablation. **References:** None

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### Chronic Assessment of Relative Percutaneous Lead "Micro-Migration"

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**Background:** Lead migration is the dominant complication in spinal cord stimulation (SCS)<sup>1</sup>. Typically, lead migration is reported only if it ultimately requires lead revision. We prospectively quantified the actual amount of lead migration in patients who did not require revision. **Methods:** From our own practices, chronic pain patients implanted with an SCS system (Precision™ implantable pulse generator and two Linear™ octopolar leads, parallel positioned in the mid-low thoracic region [T7–T9]) were enrolled. All subject provided informed consent per IRB-approved protocol. With the patient in a prone (during IPG implant) and supine (2, 4, 12, and 26 weeks post-IPG implant) posture, the C-arm was positioned in AP and lateral orientations and fluoroscopic images were taken, printed, and digitally scanned. Using imaging software, AP fluoros were analyzed for relative electrode positions. The relative, one-dimensional stagger between the two leads was estimated at each visit. Migration was defined as the relative difference in stagger in mm between the implant lead position and that measured at follow-up. **Results:** Eight patients with a mean follow-up time of 24  $\pm$  5 weeks and one patient with 2 weeks follow-up were studied. The eight patients demonstrated a mean relative stagger migration of 2.4  $\pm$  2.1 mm over the entire follow up period. Most relative migration appeared at the 2-week follow-up