

Letters

Gabapentin in the Management of Reflex Sympathetic Dystrophy

To the Editors:

Reflex sympathetic dystrophy (RSD, also known as causalgia, Sudeck's atrophy, shoulder-hand syndrome, and sympathetically maintained pain) is characterized by burning pain, allodynia, hyperpathia, vasomotor, sudomotor disturbances, edema, and bone, skin, and soft-tissue changes.¹ RSD frequently follows trauma, surgery, stroke, myocardial infections, infections, and endocrine disease.¹

We report our experience with gabapentin (Neurontin) in the treatment of refractory RSD pain in nine patients ranging from 42 to 68 years of age. Seven patients had experienced years of severe and intractable pain and all had undergone multiple treatments that included stellate ganglion or lumbar sympathetic blocks, other anesthetic blocks, and physical, occupational, and drug therapy. Prior to gabapentin therapy, the diagnosis of RSD was confirmed in each patient by a second specialist in pain management.

Gabapentin (Neurontin), an anticonvulsant in-

troduced in February 1994, has recognized effectiveness as adjunctive therapy with other antiepileptic drugs for partial seizures with or without secondary generalization. It is approved for patients with epilepsy who are over 12 years of age.^{2,3}

Gabapentin (Neurontin) was chosen because it is well tolerated and it appears to have a benign efficacy-to-toxicity ratio.^{2,4,5} This medication was considered an acceptable alternative for our patients for whom previous therapeutic approaches had been ineffective.

Ingestion of only one or two 300-mg gabapentin (Neurontin) capsules resulted in dramatic pain relief in the majority of our patients. One patient who began gabapentin therapy 6 weeks after onset of her RSD and a patient with severe right leg RSD since August 1991 required gabapentin doses of 2400 mg/day before they experienced satisfactory pain relief.

In addition to sustained pain control, early evidence of disease reversal is noted in most of our patients. Specifically, these changes include corrections in skin temperature and color, lessening and eventual relief from allodynia, hyperalgesia,

Table 1
Reflex Sympathetic Dystrophy (RSD) Patients Treated with Gabapentin (Neurontin)

| No. | Site of RSD | Age (years) | Gender | Onset | Dose | Treatment | Pain relief |
|-----|--|-------------|--------|----------|-------------|-----------|-------------|
| 1 | Left > right lower extremity | 45 | Female | 6/13/91 | 900 mg/day | 6 months | Excellent |
| 2 | Right lower extremity and neuropathic pain | 57 | Female | 7/91 | 1200 mg/day | 6 months | Good |
| 3 | Right > left upper extremity | 52 | Female | 11/21/91 | 1200 mg/day | 6 months | Excellent |
| 4 | Left upper extremity | 42 | Female | 11/14/92 | 1200 mg/day | 6 months | Excellent |
| 5 | Right upper extremity | 64 | Female | 2/2/93 | 900 mg/day | 5 months | Excellent |
| 6 | Four extremities and polyneuropathy | 48 | Female | 1981 | 900 mg/day | 4 months | Excellent |
| 7 | Right lower extremity | 43 | Male | 5/10/94 | 900 mg/day | 4 months | Excellent |
| 8 | Right lower extremity | 57 | Male | 8/91 | 2400 mg/day | 2 months | Excellent |
| 9 | Right upper extremity | 68 | Female | 9/13/94 | 2400 mg/day | 2 months | Excellent |

Good, patient rates the RSD pain severity at 3.5–5 out of 10; and excellent, patient rates the RSD pain severity at 0–3 out of 10.

and hyperpathia in most patients, and gradual reduction of soft tissue trophic changes. As noted in Table 1, case 2 had less pain improvement than her peers. This patient had a posterior tibial neuropathy, intrinsic knee pathology, and musculoskeletal pain induced by improperly applied chiropractic manual therapy in addition to her RSD.

The effective control of pain and reversal of some reflex sympathetic dystrophy signs and symptoms were largely unanticipated. The mechanism of pain relief in these patients is unknown. Although our initial clinical experiences with gabapentin in the management of RSD are promising, we recognize the need for randomized blinded prospective studies of this new drug therapy.

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