

Houtchens et al ( [\[i\]](#) ) conducted a trial using gabapentin to treat pain due to MS in 25 patients.

They reported that

"Excellent to moderate pain relief was obtained in a substantial number of patients. Throbbing pains and needles, and cramping pains responded best, and dull aching pains responded least to the medication."

Also in 1997, Rosenberg et al ( [\[ii\]](#) ) reported on the use of gabapentin to treat neuropathic pain, chiefly post-herpetic neuralgia , sympathetically-maintained pain (in Reflex Sympathetic Dystrophy) and phantom limb pain.

They concluded that

"Gabapentin may be a useful adjunct for treating neuropathic pain with a minimum of side effects. Particular advantage may be gained with the use of this drug for postherpetic neuralgia and direct peripheral nerve injuries."

Mellick & Mellick ( [\[iii\]](#) ) looked at gabapentin to treat Reflex Sympathetic Dystrophy, a condition which involves neuropathic pain and other neurogenic symptoms usually in one limb, often after trauma.

In a small study of 6 patients, they found significant improvement was effected by use of gabapentin and one patient was actually cured of hyperpathia, allodynia, hyperalgesia and early skin and soft tissue manifestations, this being the first documented cure of the condition using

gabapentin alone.

However, in 1997, Wetzel and Connolly ( [iv] ) pointed out that up until then, the majority of published studies involved small series of patients and limited data and therefore recommended that further larger studies using established protocols be undertaken.

They further suggested that

"Gabapentin should only be considered for pain management after well-established therapies have failed to produce desired outcomes."

In 1998, Merren ( [v] ) conducted a large case series looking at gabapentin for treatment of pain and tremor.

He looked at the results of treating 59 patients who had diagnoses such as central neurogenic pain, peripheral neuropathy, arachnoiditis, trigeminal neuralgia, post-herpetic neuralgia and restless legs syndrome as well as essential tremor and benign familial tremor. 68% of the patients reported improvement, of which 65% had moderate-to-excellent response.

The best response was found in patients with peripheral neuropathy and trigeminal neuralgia. Of 3 arachnoiditis patients treated, one discontinued due to adverse effects and the other 2 had moderate improvement in pain level. Treatment of benign essential/familial tremor was successful in 7 patients (6 moderate, 1 excellent control).

Also in 1998, there were 2 large studies published in the *Journal of the American Medical Association*.

One study ( [vi] ) looked at the effects of gabapentin in treating the pain caused by diabetic

neuropathy (DPN). It showed that there was a significant reduction in pain after treatment and that 26% of patients treated with gabapentin (neurontin) were pain-free at the end of the trial compared with 15% treated with placebo (which is a statistically significant difference).

One of the authors, Dr. Edwards (director of the Neurological Research Centre, Bennington) said in interview

“DPN is a neuropathic condition that is, historically, extremely difficult to treat...this study is one of the largest of its kind in this condition. In patients with DPN, gabapentin substantially reduced neuropathic pain and was well tolerated.”

“Further, more significant pain reduction was observed in some patients after only two weeks of treatment.” ( [vii](#) ) The study also found that gabapentin reduced interference of sleep by pain and had some positive effects on mood and quality of life.

The second study looked at post-herpetic neuralgia (PHN) and again was a randomised double-blind study. ( [viii](#) ) Almost twice as many patients treated with gabapentin were pain-free compared with those treated with placebo (16% versus 8.8% respectively). Many patients experienced a significant reduction in pain after treatment with gabapentin.

(Note: Diabetic peripheral neuropathy: Diabetes is a condition in which the body either fails to produce or respond to insulin, a hormone which is vital in regulating blood sugar. Nerve damage may occur, commonly in the lower extremity, especially the feet and ankles.

Post-herpetic neuralgia: severe nerve pain following an attack of shingles (herpes zoster). Some 15% of PHN sufferers have persistent pain after the rash has resolved and this pain may persist for months or even years.)

Solaro et al ( [ix] ) found that gabapentin is effective in treating hypertonia (increased muscle tone), painful tonic spasms and paroxysmal paresthetic disturbances (PPD) seen in Multiple Sclerosis. Some of these symptoms are seen in other conditions such as arachnoiditis.

A recent study (x) has confirmed that gabapentin reduces the impairment of spasticity in Multiple Sclerosis.

Serrao et al (xi) have found that gabapentin is helpful in treating muscle cramps; their open label trial results were published earlier this year and they suggested that a dose of 600-1200mg/day may be effective in controlling muscle cramps, which can be experienced in a number of different conditions.

i Houtchens MK, Richert JR, Sami A, Rose JW Mult Scler 1997 Aug;3(4):250-253 Open label gabapentin treatment for pain in multiple sclerosis.

ii Rosenberg JM, Harrell C, Ristic H, Werner RA, de Rosayro AM Clin J Pain 1997 Sep;13(3):251-255 The effect of gabapentin on neuropathic pain.

iii Mellick GA, Mellick LB Arch Phys Med Rehabil 1997 Jan;78(1):98-105 Reflex sympathetic dystrophy treated with gabapentin.

iv Wetzel CH, Connelly JF Ann Pharmacother 1997 Sep;31(9):1082-1083 Use of gabapentin in pain management.

v Merren MD., South Med J 1998; 91(8): 739-744 Gabapentin for Treatment of Pain and Tremor: A Large Case Series

vi Backonja M, Beydoun A, Edwards KR et al. JAMA 1998;280:1831-1836 Gabapentin for the symptomatic treatment of painful neuropathy in patients with diabetes mellitus: a randomised

controlled trial.

vii Doctor's Guide Medical News website &quot;Neurontin Significantly Reduces Chronic Neuropathic Pain&quot; <http://www.pslgroup.com/dg/d6ac6.htm>

viii Rowbotham M, Harden N, Stacey B et al JAMA 1998;280:1837-1842 Gabapentin for the treatment of postherpetic neuralgia: a randomised controlled trial.

ix Solaro c., et al Neurology 1998;51;609-11 Gabapentin may be effective treatment for paroxysmal symptoms in Multiple Sclerosis

x Cutter NC, Scott DD, Johnson JC, Whiteneck G Arch Phys Med Rehabil 2000 Feb;81(2):164-9 Gabapentin effect on spasticity in multiple sclerosis: a placebo-controlled, randomized trial.

xi Serrao M, Rossi P, Cardinali P, Valente G, Parisi L, Pierelli F Clin Neuropharmacol 2000 Jan-Feb;23(1):45-9 Gabapentin treatment for muscle cramps: an open-label trial.

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