Pregabalin for radiculopathy

- Denervation Myositis (Due to Lumbar Perineural Cyst) Masquerading as Severe Foot Pain
- Effective Biportal Endoscopic Spine Surgery Technique With Better Facet Joint Preserving for Lumbar Lateral Recess Stenosis
- Control of neuropathic pain in lumbosacral dorsalgia
- Comparing the effectiveness of pregabalin and gabapentin in patients with lumbar radiculopathy: A systematic review and meta-analysis
- Proximal femur diaphysis osteoid osteoma mimicking lumbar radiculopathy
- Pregabalin and gabapentin for chronic low back pain without radiculopathy: a systematic review
- 2. Cervical radicular pain
- White Cord Syndrome: A Treatment Dilemma

Among many medications available for managing neuropathic pain, gabapentinoids, including gabapentin (GBP) and pregabalin (PGB), are considered as the first-line treatment in most clinical guidelines [1)]

There is scant evidence for the use of paracetamol, nonsteroidal anti-inflammatory drugs, and neuropathic pain medications such as gabapentin, pregabalin, tricyclic antidepressants, and anticonvulsants for the treatment of radicular pain [2)]

A retrospective claim database analysis was carried-out using medical records of patients of both gender aged >18 years with axial painful radiculopathy (ICD-9-CM codes: 353.0 [cervical], 353.3 [thoracic] or 353.1 [lumbar]) who initiated pregabalin or gabapentin therapy between 2006 and 2008. The economic evaluation included healthcare resource utilisation and corresponding costs from a third-payer perspective during 12 months post index date. Estimates of indirect costs due to sick leave were also computed.

Results: A total of 571 records were eligible for analysis: 375 (66%) treated with pregabalin and 193 (34%) gabapentin. Time since diagnosis, duration of treatment, prevalence of most co-morbidities and previous use of analgesics were comparable. However, concomitant use of analgesics was higher in the gabapentin cohort; 3.1 (1.7) vs. 2.8 (1.8); $p<0.05$, mainly due to greater use of opioids (31.1% vs. 21.2%; $p<0.05$) and non-narcotic drugs (63.7% vs. 52.1%; $p<0.01$). Adjusted total costs per patient were significantly lower in the pregabalin group; €2.472 (2.101-2.836) vs. €3.346 (2.866-3.825); $p=0.005$, due to lower absenteeism costs; €1.012 (658-1.365) vs. €1.595 (1.129-2.062); $p=0.042$, and lower adjusted healthcare costs; €1.460 (1.360-1.560) vs. €1.750 (1.618-1.882); $p=0.001$.

In a population setting, pregabalin-treated patients with painful radiculopathies were considerably less costly for the healthcare payer than those treated with gabapentin in routine clinical practice. Patients treated with pregabalin had significantly fewer days of sick leave than gabapentin-treated patients [3)].

The objective of the study was to evaluate the effect of pregabalin in painful cervical or lumbosacral radiculopathy treated in Primary Care settings under routine clinical practice. An observational, prospective 12-week secondary analysis was carried out. Males and females above 18 years, naïve to PGB, with refractory chronic pain secondary to cervical/lumbosacral radiculopathy were enrolled. SF-MPQ, Sheehan Disability Inventory, MOS Sleep Scale, Hospital Anxiety and Depression Scale and the EQ-5D were administered. A total of 490 (34%) patients were prescribed PGB monotherapy, 702 (48%) received PGB add-on, and 159 (11%) were administered non-PGB drugs. After 12 weeks, significant improvements in pain, associated symptoms of anxiety, depression, and sleep disturbances, general health; and level of disability were observed in the three groups, being significantly greater in PGB groups. In routine medical practice, monotherapy or add-on pregabalin is associated with substantial pain alleviation and associated symptom improvements in painful cervical or lumbosacral radiculopathy [4)].

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- Pentoxifylline significantly reduces radicular pain secondary to lumbar disc hernia: A prospective, randomized crossover, single-blind controlled pilot study
- Management of lumbar disc herniation with radiculopathy: Results of an Iberian-Latin American survey
- Comparisons between the efficacy of limaprost alfadex and pregabalin in cervical spondylotic radiculopathy : design of a randomized controlled trial

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Quality information to support the use of pregabalin or gabapentin in the treatment of chronic low back pain without radiculopathy or neuropathy is lacking, although results may suggest gabapentin as a viable option. More data is needed to fill this current gap in knowledge [5)].

A study was conducted to compare the effect of pregabalin and gabapentin in lumbar radiculopathy patients who underwent transforaminal epidural steroid injection. One hundred seven patients who received TFESI and had taken PGB or GBP after the intervention at Daegu Catholic University Medical Center from January 2013 to August 2021 were included in this study. Visual Analogue Scale (VAS) was evaluated in all patients. Among 107 patients, 57 (53.3%) patients took PGB and 50 (46.7%) patients took GBP after TFESI. The PGB and GBP groups showed reduced VAS scores according to visit ($P < .001$). However, no statistically significant differences in VAS scores according to the types of medication ($P = .811$) and change aspects according to visit were observed between the PGB and GBP groups ($P = .947$). The study findings suggest that both pregabalin and gabapentin can be equally used to reduce pain in lumbar radiculopathy patients who underwent TFESI. Further studies with larger sample sizes are needed to generalize the findings of this study [6)].

Baron et al. evaluated the efficacy of pregabalin in patients with chronic lumbosacral radiculopathy. This randomized, controlled, withdrawal trial included five phases: screening (4-18 days); run-in (4-10 days) to screen out placebo responders; single-blind (28 days) to identify pregabalin responders; double-blind to randomize responders to pregabalin or placebo (35 days); and final study medication taper (7 days). The primary endpoint was time to loss of response (LOR) during the double-blind phase (1-point increase in pain, discontinuation, or rescue-medication use). In the single-blind phase, 58% of patients had 30% pain reduction. In the double-blind phase, pregabalin (n=110) and placebo (n=107) groups did not differ significantly in time to LOR. Adverse events caused the discontinuation of 9.9% and 5.6% of pregabalin-treated and placebo-treated patients, respectively. Most patients with chronic lumbosacral radiculopathy responded to pregabalin therapy; however, time to LOR did not significantly differ between pregabalin and placebo. Considering the results of all phases of the study, it is difficult to draw definitive conclusions from it, suggesting a need for further work to understand the clinical potential of pregabalin treatment for lumbosacral radiculopathy [7].

Trials

Mathieson et al. conducted a randomized, double-blind, placebo-controlled trial of pregabalin in patients with sciatica. Patients were randomly assigned to receive either pregabalin at a dose of 150 mg per day that was adjusted to a maximum dose of 600 mg per day or matching placebo for up to 8 weeks. The primary outcome was the leg-pain intensity score on a 10-point scale (with 0 indicating no pain and 10 the worst possible pain) at week 8; the leg-pain intensity score was also evaluated at week 52, a secondary time point for the primary outcome. Secondary outcomes included the extent of disability, back-pain intensity, and quality-of-life measures at prespecified time points over the course of 1 year.

A total of 209 patients underwent randomization, of whom 108 received pregabalin and 101 received placebo; after randomization, 2 patients in the pregabalin group were determined to be ineligible and were excluded from the analyses. At week 8, the mean unadjusted leg-pain intensity score was 3.7 in the pregabalin group and 3.1 in the placebo group (adjusted mean difference, 0.5; 95% confidence interval [CI], -0.2 to 1.2; P=0.19). At week 52, the mean unadjusted leg-pain intensity score was 3.4 in the pregabalin group and 3.0 in the placebo group (adjusted mean difference, 0.3; 95% CI, -0.5 to 1.0; P=0.46). No significant between-group differences were observed with respect to any secondary outcome at either week 8 or week 52. A total of 227 adverse events were reported in the pregabalin group and 124 in the placebo group. Dizziness was more common in the pregabalin group than in the placebo group.

Treatment with pregabalin did not significantly reduce the intensity of leg pain associated with sciatica and did not significantly improve other outcomes, as compared with placebo, over the course of 8 weeks. The incidence of adverse events was significantly higher in the pregabalin group than in the placebo group. (Funded by the National Health and Medical Research Council of Australia; PRECISE Australian and New Zealand Clinical Trials Registry number, ACTRN12613000530729 .) [8]

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