



From Nerve Pain to Knee Pain: Gabapentinoids for osteoarthritis

CLINICAL QUESTION

Are gabapentinoids effective for the treatment of osteoarthritis?

BOTTOM LINE

Based on a few small, short, randomized controlled trials (RCTs), gabapentinoids are likely superior to placebo. On a 0-to-10 point scale (lower=less pain, baseline=6), gabapentinoids decreased pain to 3.4 versus 5.4 (placebo) at 13 weeks, but the percentage of patients who respond to therapy is unknown. Efficacy appears similar to duloxetine. Gabapentinoids can cause dizziness, peripheral edema and weight gain.

EVIDENCE

- Results statistically significant unless indicated.
- One systematic review without meta-analysis:¹ RCTs (plus one additional)² reported individually. Knee osteoarthritis unless indicated. Pain usually measured on visual analog scale, range 0-10, lower=less pain.
- Versus placebo:
 - 44 patients (hand osteoarthritis); pregabalin 300mg or placebo. At 13 weeks:³
 - Pain (baseline ~6): Decreased to 3.4 (pregabalin) versus 5.4 (placebo).

- Function (scale with range 0-900, lower=better, baseline ~595): decreased to 362 (pregabalin) versus 509 (placebo).
 - Days using rescue medications: 9 (pregabalin) versus 56 (placebo) (statistics not reported).
- Versus acetaminophen:
 - 100 patients; gabapentin 600mg or acetaminophen 2000mg. At 12 weeks:⁴
 - Pain, PEER estimation (baseline ~8.5): Decreased to ~3 (gabapentin) versus ~5 (acetaminophen).
 - Function, PEER estimation (scale with range: 0-68, lower=better, baseline ~55): Decreased to ~17 (gabapentin) versus ~35 (acetaminophen).
- Versus duloxetine:
 - 60 patients; 300mg pregabalin versus 60mg duloxetine. At 12 weeks:²
 - Pain (baseline ~7): Decreased to 2.1 (pregabalin) versus 2.7 (duloxetine), not statistically different.
 - Function (scale with range: 0-68, lower=better, baseline ~39): decreased to 15 (pregabalin) versus 23 (duloxetine).
 - Additional RCTs, pain:^{3,4} Pregabalin 300mg and gabapentin 600mg similar to duloxetine.
- Versus oral NSAID:
 - 59 patients: Pregabalin 25mg versus meloxicam 10mg.⁵ At 4 weeks:
 - Pain, function: Similar between groups.
- Limitations: Small trials with short duration may inflate benefit, limited harms reported, underpowered,²⁻⁴ lack of blinding,^{2,5} no responder analyses.²⁻⁴

CONTEXT

- For chronic pain, 12% patients stop gabapentinoids due to adverse effects (dizziness, peripheral edema, weight gain).⁶
- Osteoarthritis Guideline:⁶
 - Physical activity foundational.
 - Pharmacologic options: Reduction on 11-point visual analog scale over placebo of ~1-1.5 for oral/topical NSAIDS, intra-articular corticosteroids and duloxetine.⁷⁻⁸
 - Acetaminophen: No effect.
 - Pregabalin/gabapentin: Not discussed.

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