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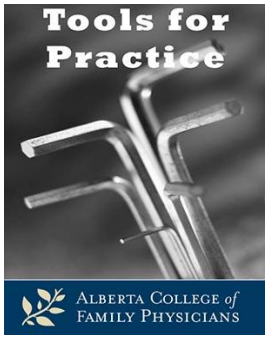
Reviewed: January 13, 2018
Evidence Updated: New systematic review; no new RCT
Bottom Line: Unchanged
First Published: November 29, 2011



Is colchicine an effective alternative to NSAIDs for the treatment of acute gout?

Clinical Question: For patients with acute gout, is colchicine an effective treatment, and when would its use be indicated?

Bottom Line: Colchicine is a reasonable option for the treatment of acute gout, especially in patients in whom NSAIDs are contraindicated. Optimal dosing that balances treatment benefit with potential adverse events remains to be determined, but low dose is recommended.

Evidence:

- Two Randomized Controlled Trials (RCTs) provide the best-available evidence to answer this question:
  - Industry-funded trial[1] with unclear risk of bias:
    - Population: 575 patients with gout randomized in a blinded fashion to low- or high-dose colchicine or placebo for the next gout attack (185 patients had a gout attack requiring study drug).
    - Interventions:
      - Low-dose: 1.2 mg, then 0.6 mg one hour later (1.8 mg total).
      - High-dose: 1.2 mg, then 0.6 mg every one hour x 6 hours (4.8 mg total).
    - Primary outcome: Achieved ≥50% reduction in pain at 24 hours without use of 'rescue' medicine.
      - Statistically significant benefit with low-dose colchicine versus placebo (37.8% vs. 15.5%, Number Needed to Treat (NNT)=5).
      - No difference between low- and high-dose colchicine (37.8% versus 32.7%).
    - Adverse events:
      - Low-dose colchicine had statistically significantly fewer adverse events than high-dose.
        - Diarrhea: 26% versus 77%, NNT=2.
        - Nausea: 4% versus 17%, NNT=8.
  - The only other placebo-controlled trial[2] of colchicine for acute gout showed a similar benefit (NNT=3), however:

        - High-dose regimen (1 mg, followed by 0.5 mg every two hours until complete pain relief or adverse events) resulted in 100% adverse event rate (vomiting or diarrhea).
- Systematic reviews found no other RCTs of colchicine.[3,4]

Context:

- The latest guidelines[5,6] recommend low-dose colchicine, NSAIDs, or oral corticosteroids for acute gout.
- No published studies have directly compared colchicine to NSAIDs or corticosteroids,[3,4] and no specific NSAID appears superior to another NSAID in treating acute gout.[7]
- Caution is recommended when using:
    - NSAIDs in patients with hypertension, cardiovascular or renal impairment, or those at risk of gastrointestinal events.[8]
    - Colchicine in patients with renal or hepatic impairment and patients on CYP3A4 inhibitors (clarithromycin, calcium-channel blockers, oral antifungals, and many more) or P-glycoprotein inhibitors (e.g. cyclosporine).[8,9]

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Tools for Practice is a biweekly article summarizing medical evidence with a focus on topical issues and practice modifying information. It is coordinated by G. Michael Allan, MD, CCFP and the content is written by practising family physicians who are joined occasionally by a health professional from another medical specialty or health discipline. Each article is peer-reviewed, ensuring it maintains a high standard of quality, accuracy, and academic integrity. If you are not a member of the ACFP and would like to receive the TFP emails, please sign up for the distribution list at http://bit.ly/signupfortfps. Archived articles are available on the ACFP website.