

Monday, November 7, 2011: 9:00 AM-6:00 PM
Hall F2 - Poster Hall (McCormick Place West)

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Background/Purpose: Acute gout flares are commonly treated with non steroidal anti-inflammatory agents (NSAIDs), colchicine, or corticosteroids. We systematically reviewed the published data on the pharmacological agents used for the treatment of acute gouty arthritis.

Method: PubMed and CENTRAL databases were searched to find articles on gout till March 2011. From 5830 titles, 3729 titles excluded as these were duplicate, non-English, or met our exclusion criteria – leaving 1827 abstracts. Abstracts were reviewed by 2 reviewers leading to a total 128 manuscripts. We also reviewed the ACR and EULAR abstracts for last 3 years. A total of 26 manuscripts and 3 abstracts were selected for the systematic review.

Result: 27 of the 29 studies were active comparator studies, while the remaining two studies had a placebo control group. 23 studies were randomized controlled trials and 6 open pilot studies. The pooled mean (SD) age in the trials was 55 (12) years and 88% were males. 21% of studies treated patients within 24 hours of an acute gout attack, 27.5% within 48 hours, and 27.5% within 5 days; in 24% studies the duration of acute gout attack was not reported.

NSAIDs are the most frequently studied agents for the treatment of acute gout attacks. Indomethacin (INDO) has been extensively studied at doses of 50mg TID. INDO is comparable in efficacy to oral or IM NSAIDs when started within 48 hours. When compared to COX-2 selective inhibitors, indomethacin is associated with greater adverse events. Naproxen has been used at 500mg BID up to 1500mg daily for the treatment of acute gout. Naproxen is as efficacious as other NSAIDs, but has not been compared to COX-2 inhibitors. Etorocoxib and lumiracoxib (COX-2 inhibitors) has similar efficacy to NSAIDs but greater tolerability profile. High dose celecoxib (800/400mg on day 1) has similar efficacy to INDO. 2 studies showed that oral colchicine had greater efficacy in treating pain compared to placebo within first 12 hours of an acute attack. Although low dose (1.2 mg, followed by 0.6 mg) and high dose colchicine (4.8mg total over 6 hours) have comparable efficacy, low-dose colchicine has a significantly greater tolerability profile. Corticosteroids and IM ACTH have similar efficacy to therapeutic doses of NSAIDs in treating an acute gout attack. Adverse events were generally lower in patients on corticosteroids and ACTH compared to NSAIDs. Subcutaneous single-dose canakinumab 150mg is more efficacious than single-dose 40mg IM triamcinolone acetonide for acute gout attack whose disease is refractory to or who have contraindications to NSAIDs and/or colchicine. Rilonacept was not more efficacious than indomethacin in a RCT. Topical ice was effective in reducing pain, when used with corticosteroids and colchicine. 8 studies of NSAIDs reported pain as an outcome measure. NSAIDs treatment started within 24 hours of acute onset was associated with an average weighted percent improvement of 76% vs. 61% for 48 hours (P=0.16).

Conclusion: NSAIDs and colchicine are effective in treating acute gout attack. Corticosteroid, ACTH, and canakinumab can be used in patients who have contraindications to NSAIDs and colchicine.

Keywords: gout

Disclosure: **P. Khanna**, Novartis Pharmaceutical Corporation, 5, Ardea, 5, Takeda, 8 ; **M. K. Singh**, None; **J. D. FitzGerald**, None; **S. Bae**, None; **S. Prakash**, None; **M. Kaldas**, None; **M. Gogia**, None; **P. Maranian**, None; **R. Terkeltaub**, Takeda, 5, URL, 5, ARDEA, 5, BioCryst, 5, Regeneron, 5, Novartis Pharmaceutical Corporation, 5, Pfizer Inc, 5, Metabolex, 5 ; **D. Khanna**, Savient, 2, ACR, 2, Savient, 5, Novartis Pharmaceutical Corporation, 5, Ardea, 5, Takeda, 5, Takeda, 8 .