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LETTER TO THE EDITOR

Reply to the letter regarding "Comparison of gastrointestinal adverse effects between cyclooxygenase-2 inhibitors and non-selective, non-steroidal anti-inflammatory drugs plus proton pump inhibitors: a systematic review and meta-analysis"

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To the Editor:

We thank Dr. Lai and his colleagues for their comments related to our article "Comparison of gastrointestinal adverse effects between cyclooxygenase-2(COX-2) inhibitors and non-selective, non-steroidal anti-inflammatory drugs (ns-NSAID) plus proton pump inhibitors (PPI)" [1]. According to our analyses, the risk of major gastrointestinal (GI) complications was lower in COX-2 inhibitors, as compared to ns-NSAIDs plus PPI. We agree that patients who take COX-2 inhibitors are still at risk for GI adverse events, when compared to patients who **do not** take these medications. As shown in a metaanalysis by Rostrom et al. [2], high-dose COX-2 inhibitors insignificantly increased the risk of gastric (relative risk or RR 1.22; 95% CI 0.83–1.80) and duodenal (RR, 1.29; 95% CI 0.63–2.66) ulcers, as compared to placebo. However, when compared to ns-NSAIDs, the risk of major GI complications including perforation, ulceration, bleeding, and obstruction were lower in COX-2 inhibitors.

The increased risk of peptic ulcer in a cohort study needs to be cautiously interpreted because this study design is susceptible to selection bias resulting in imbalanced prognostic characteristics at baseline. In daily practice, physicians usually prescribe COX-2 inhibitors for patients who are at high risk of developing GI complications, e.g., old age, prior GI ulcer or bleeding, aspirin or anti-coagulant user, and steroid use, whereas patients with low risk are usually treated with ns-NSAIDs. Therefore, the risk of GI complications between COX-2 inhibitors vs. ns-NSAIDs may be comparable or even higher in COX-2 inhibitors.

We totally agree that COX-2 inhibitors are associated with increased risk of GI complication. Patients requiring NSAID therapy who are at high risk should receive COX-2 inhibitor and GI protective therapy (e.g., misoprostol or PPI) or alternative therapy for pain control.

Reference

1. Jarupongprapa S UP, Katchamart W. Comparison of gastrointestinal adverse effects between cyclooxygenase-2 inhibitors and non-selective, non-steroidal anti-inflammatory drugs plus proton pump inhibitors: a systematic review and meta-analysis. J Gastroenterol. 2012; [Epub ahead of print]. doi:10.1007/s00535-012-0717-6.
2. Rostom AMK, Dubé C, Jolicoeur E, Boucher M, Joyce J, Tugwell P, Wells GW. Gastrointestinal safety of cyclooxygenase-2 inhibitors: a Cochrane Collaboration systematic review. Clin Gastroenterol Hepatol. 2007;5(7):818–28.

This author's reply refers to the letter to the editor at doi:10.1007/s00535-013-0784-3.

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