

## Letter to the Editors

## Prophylactic use of gastro-protective agents in patients on low-dose aspirin

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Low-dose aspirin is commonly prescribed for the prevention of thrombotic events in high-risk patients. Even at doses as low as 80–160 mg day<sup>-1</sup>, aspirin leads to upper gastrointestinal (GI) complications in 0.6–1.2% patients per year [1]. Most epidemiological studies have reported a relative risk of upper gastrointestinal complications with low-dose aspirin of between 2.0 and 2.6 [2, 3]. Despite this, routine coprescription of gastro-protective agents with aspirin or other NSAIDs is usually not advocated [1, 4]. Gastro-protective drugs have been suggested for patients at increased risk of upper GI complications, e.g. history of ulcer or upper GI bleeding, age >70 years, concomitant use of nonsteroidal anti-inflammatory drugs (NSAIDs), and *Helicobacter pylori* infection [3].

During a routine prescription audit, we came across prescriptions of low dose aspirin accompanied by gastro protective agents. The current study was planned to evaluate the practice of prescribing gastro-protective drugs in our hospital, Pondicherry Institute of Medical Sciences (PIMS), a medical college cum hospital in South India.

Prescription information was obtained from duplicate prescriptions at the outpatient pharmacy. Randomly selected prescriptions were scrutinized from 10<sup>th</sup> April 2007 to 14<sup>th</sup> May 2007. Diagnoses were obtained from the Medical Records Section. A total of 44 prescriptions, representing 40 patients, containing low dose aspirin were collected. Of these, 31 were men. Ages varied from 24 to 78 years, with four patients over the age of 70 years. The indication for low dose aspirin was an increased risk for thrombosis due to cardiovascular disease in all 40 patients, with concurrent diabetes mellitus in 12. There were no patients with a history of, or active, peptic ulcer disease. The dose of aspirin was 75 mg and 150 mg daily in 36 and four patients, respectively. Duration of aspirin therapy ranged from 2 to 90 days, with a mean duration of 28 days. Only one patient was on concurrent NSAID, a combination of ibuprofen and acetaminophen (Combiflam). Four patients were receiving acetaminophen, including the one on

**Table 1**

Gastro-protective drugs prescribed in patients on low-dose aspirin

Drug	Dose	Number of patients (n = 15)
Ranitidine	150 mg twice daily	6
	150 mg once daily	2
Famotidine	40 mg once daily	2
	20 mg once daily	1
Pantoprazole	40 mg once daily	4

Combiflam, who was prescribed acetaminophen individually in addition to the fixed dose combination. All prescriptions of Combiflam and acetaminophen were for less than 4 days. No patient was prescribed a corticosteroid.

Fifteen (37.5%) patients were prescribed a gastro-protective drug (Table 1). Histamine H<sub>2</sub>-receptor antagonists were prescribed in 11 patients. Of these, eight patients (including the patient on Combiflam) received ranitidine, while three were receiving famotidine. Four patients were prescribed a proton pump inhibitor (PPI), i.e. pantoprazole. None of the patients over 70 years of age received any gastro-protective drug.

Prophylactic use of gastro-protective agents is usually not indicated in patients on low-dose aspirin unless there is a risk factor for gastrointestinal complications. Despite this, we found a substantial number of patients (37.5%) were being prescribed such drugs. Only one out of 15 had a recognized risk factor for peptic ulcer disease, i.e. concurrent use of NSAID. On the other hand, patients above 70 years may be at a higher risk of upper gastrointestinal complications with aspirin, and may be considered suitable candidates for gastro-protective therapy [5, 6]. Despite this, four elderly patients were not on any antiulcer drug.

The choice and dosage of gastro-protective drug was also questionable. Although histamine H<sub>2</sub>-receptor

antagonists can be used for prevention of aspirin and other NSAID-induced peptic ulcers, most authorities recommend PPIs at standard doses as drugs of first choice for this purpose [4, 7]. Moreover, if used, histamine H<sub>2</sub>-receptor antagonists need to be prescribed at double doses, i.e. ranitidine 300 mg twice daily or famotidine 40 mg twice daily, as standard doses are not effective in reducing the incidence of NSAID induced gastric ulcers [7]. However standard and even low doses of histamine H<sub>2</sub>-receptor antagonists were being prescribed in the present study.

A change in this prescribing practice is required, for more appropriate use of gastro-protective drugs along with low dose aspirin.

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## RECEIVED

25 September 2007

## ACCEPTED

23 October 2007

## PUBLISHED *OnlineEarly*

21 February 2008

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