

BENEFITS VERSUS RISKS OF PROTON PUMP INHIBITORS: ARE WE OPENING THE CAN OF WORMS

Naser Ashraf Tadvi,¹ Sajid Hussain,¹ Usama Bin Ghaffar²

ARTICLE INFO

Received: 2nd Oct 2015

Revised: 4th Nov 2015

Accepted: 18th Dec 2015

Author details: ¹Assistant Professor, Department of Pharmacology, College of Medicine, Majmaah University
²Assistant Professor, Department of Pathology, College of Medicine, Majmaah University

Corresponding author: Dr Naser Ashraf Tadvi, ¹Assistant Professor, Department of Pharmacology, College of Medicine, Majmaah University
Email id: nasertadvi@yahoo.co.uk

Sir,

Proton pump inhibitors (PPIs) are one of the most commonly used drugs worldwide. They are indicated for treatment of Gastro-esophageal Reflux Disease (GERD), acid peptic disorders, stress ulcers and prophylaxis of NSAID induced ulcers.[1] PPIs are more efficacious than other drugs like histamine -2 receptor blockers for the treatment of these disorders.[1] Though PPIs are highly potent and effective acid suppressors they are often misused and prescribed irrationally.

The incidence of irrational use of PPIs varies from 40-70 % in different studies. [2] In one of our previous studies 58 % of PPIs prescriptions were irrational. [2] These findings become much more significant in the light of recent findings which suggest correlation of long term use of PPIs to myocardial infarction and kidney injury. [3,4] The PPIs may be deemed safe for short term use but chronic use carries risk of hip fractures, infection with *clostridium difficile*, community acquired pneumonia.[2] PPIs exposure in elderly population was also found to be associated with hyperparathyroidism in one recently conducted study.[5] The ongoing long term studies for assessing the safety and association of PPIs with various serious outcomes may open up a new can of worms.

Keeping in mind the benefits as well as risks of proton pump inhibitors, clinicians should judiciously use these drugs in practice. The patients should also be educated regarding the adverse outcomes of PPIs on long term therapy as these drugs are easily available without prescription.

REFERENCES

1. Blume H, Donath F, Warnke A, Schug BS. Pharmacokinetic drug interaction profiles of proton pump inhibitors. *Drug Safety*. 2006;29(9): 769-84.
2. Nousheen, Tadvi NA, Shareef SM. Use of proton pump inhibitors in general practice: is it rationale? *Int J Med Res Health Sci*. 2014;3(1):37-42.
3. Shah NH, LePendou P, Bauer-Mehren A, Yohannes T, Ghebremariam YT, Iyer SV, et al. Proton Pump Inhibitor Usage and the Risk of Myocardial Infarction in the General Population. *PLoS ONE*. 2015; 10(6): e0124653.
4. Antoniou T, Macdonald EM, Hollands S, Gomes T, Mamdani MM, Garg AX, et al. Proton pump inhibitors and the risk of acute kidney injury in older patients: a population-based cohort study. *CMAJ Open*. 2015; 3(2): E166-71.
5. Hyperparathyroidism Associated with Long-Term Proton Pump Inhibitors Independent of Concurrent Bisphosphonate Therapy in Elderly Adults. Hinson AM, Wilkerson BM, Rothman-Fitts I, Riggs AT, Stack BC Jr, Bodenner DL. *J Am Geriatr Soc*. 2015;63(10):2070-3.