STUDENTS' CORNER
LETTER TO THE EDITOR

Proton pump inhibitors for HIV+ patients - A word of caution

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Madam, HIV (human immunodeficiency virus) is on the rise in Pakistan. A Lancet global health modeling study reports that patient registration with the National Aids Control Program (NACP) has risen from 4500 in 2013 to 24331 in 2019.[1] In HIV+ patients, the gastrointestinal tract is a common site of infection, often leading to anorexia, dysphagia, vomiting, weight loss, and diarrhoea. A study conducted in 2016 showed that 80% of HIV-infected adults had moderate-severe GERD (gastro-oesophageal reflux disorder) symptoms.[2] Physicians often prescribe proton pump inhibitors (PPIs) to treat GERD and stomach or duodenal ulcers. This class of drugs is the most potent inhibitor of gastric acid secretion and is ,unfortunately, prescribed excessively and often inappropriately, regardless of if the patient is HIV+. A recent study shows that 66.2% of patients in a tertiary care hospital in Karachi, Pakistan receive PPIs without proper indication.[3]

However, PPIs being prescribed inappropriately pose severe health risks to individuals that are HIV+. A recent study in 2019 raised the valid concern that the use of PPIs in patients already receiving anti-retroviral (ARV) therapy in HIV+ patients could very well be related to an increased risk of acute kidney infection (AKI).[4] This is not the only research to show the adverse effect of PPI use in HIV patients. A 2017 study shows statistically significant increased innate immune activation due to the translocation of microbial products in HIV+ patients taking PPIs.[5] This can carry serious future implications for these patients post-treatment because higher levels of innate immune activation markers are associated with immunological failure in HIV-treated patients.[6]

These statistics raise a very critical question- is it safe for PPIs to be prescribed so freely without any attention to patients being HIV+ or on ARV therapy? It is suggested that existing and future ARV therapies be planned carefully if PPIs are prescribed, and close attention be paid to a patient's virologic response. In the case of acute hospital admission, where PPIs are prescribed for preventing stress-induced or GI ulcers, medication reconciliation algorithms that acknowledge the interaction between protease inhibitors (PIs) and PPIs should be used.[7] It would be prudent to use PPIs strictly when prescribed and for lesser periods of time.

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