Comparing the Long Term Use of H2 Antagonists (H2RAs) and Proton Pump Inhibitors (PPIs) and the Incidence of Colitis

Reiner Kremer
University of North Dakota

Follow this and additional works at: https://commons.und.edu/pas-grad-posters

Part of the Gastroenterology Commons

Recommended Citation
Kremer, Reiner, "Comparing the Long Term Use of H2 Antagonists (H2RAs) and Proton Pump Inhibitors (PPIs) and the Incidence of Colitis" (2014). Physician Assistant Scholarly Project Posters. 124.
https://commons.und.edu/pas-grad-posters/124

This Poster is brought to you for free and open access by the Department of Physician Studies at UND Scholarly Commons. It has been accepted for inclusion in Physician Assistant Scholarly Project Posters by an authorized administrator of UND Scholarly Commons. For more information, please contact Zeineybousif@library.und.edu.
The recommended duration of PPI therapy for mild-moderate peptic ulcer disease is 4-8 weeks. The drugs associated with microscopic colitis are proton pump inhibitors (PPIs) and histamine 2 receptor-antagonists (H2RAs). Microscopic colitis has increased concurrent to the use of PPIs and H2RAs. Microscopic colitis is associated with ranitidine (Zantac) and lamotrigine (Lamictal). Microcytic colitis has increased concurrent to the use of PPIs and H2RAs. Diarrhea is often the most common adverse event.

Medications for GERD may affect the colonic mucosa. The most potent medications that suppress gastric acid are PPIs. They have been shown to decrease the incidence of colonic inflammation. Although considered safe, long-term use has raised safety concerns. PPIs can also interact with mechanisms and sites of action, other than that of gastric H+/K+ ATPase. Colonic epithelial cells also express proton pumps, which can be modulated by PPIs. PPIs have also been shown to affect the colonic microbiome, leading to changes in gut flora. PPIs can also interact with mechanisms and sites of action, other than that of gastric H+/K+ ATPase. Colonic epithelial cells also express proton pumps, which can be modulated by PPIs. PPIs have also been shown to affect the colonic microbiome, leading to changes in gut flora.

Multiple case studies suggest a causal relationship between microscopic colitis and lamotrigine and omeprazole and esomeprazole treatment, due to the temporal association of exposure, resolution of symptoms and normalization of histopathology upon drug withdrawal, and the immediate recurrence of disease with histologic abnormalities upon drug re-exposure. PPIs are therapeutically more effective than H2RAs in the treatment of gastroesophageal reflux disease, have a higher risk profile, increased ADRs and are more broadly implicated in microscopic colitis. Microscopic colitis causing chronic diarrhea and chronic colonic inflammation continues to be a significant complication risk with the extended use of certain PPIs (lansoprazole (Prevacid), omeprazole (Prilosec), and esomeprazole (Nexium)) and the H2RA (ranitidine (Zantac)). PPIs have the physiological and functional potential to interfere with gastrointestinal physiology by virtue of altering intestinal pH. PPIs can also interact with mechanisms and sites of action, other than that of gastric H+/K+ ATPase. Colonic epithelial cells also express proton pumps, which are involved in maintaining large electrolyte balance. Several bacteria including Staphylococcus aureus, Escherichia coli, and Strep pneumoniae can be detected in the colonic mucosa. Patient education in avoiding GERD triggers can decrease the frequency and incidence of GERD. esophagitis, peptic ulcer disease and dyspepsia.到账的...