Peptic Ulcer Disease

Goals of Treatment

to ameliorate symptoms of peptic ulcer disease

to promote ulcer healing

to prevent complications of peptic ulcer disease (hemorrhage or perforation)

to prevent recurrences of peptic ulcer disease

to prevent complications of stress ulcers

HP or Not

Urea Breath Test
– < 50 years old and no alarm symptoms
(vomiting, bleeding, anemia, weight loss)

Gastroscopy and biopsy
– > 50 years old or new or alarm symptoms

Blood: IGG previous (not current) infection

H. pylori test and treat plus ulcer healing drug versus ulcer healing drug (UHD)

overall healing no difference (around 80%)

no difference in recurrence of H. pylori therapy versus chronic UHD (around 10%)

H. pylori therapy vs placebo - decreased recurrence (15% versus 65%)

The Cochrane Library 2009

H.pylori eradication in patients with GI bleeds

- Rebleeding in H.pylori eradication group 2.9% versus 20% in no treatment group
- Rebleeding in H.pylori eradication group 1.6% versus 5.6% in long-term acid suppression group

The Cochrane Library 2005;4

Issues to consider when selecting an H pylori eradication regimen

- percent eradication of H. pylori - all roughly 80%
- patients with symptoms should receive a regimen that contains an acid suppressor like an H2 antagonist or proton pump inhibitor
- all H2 antagonists are equally effective so choose the least expensive of cimetidine, ranitidine, famotidine, nizatidine
- all proton pump inhibitors are equally effective so choose the least expensive of omeprazole, pantoprazole, lansoprazole, esomeprazole. rabeprazole

Issues to consider when selecting a regimen

regimens containing amoxicillin cannot be used in patients with penicillin allergies

alcohol must be avoided with metronidazole regimens

more resistance with metronidazole (20%) than amoxicillin (1%) BUT..

convenience of twice a day versus three or four times a day dosing

duration of therapy 7 days to 2 weeks - no real difference if look at high quality trials

quadruple vs triple therapy - no real difference - Bismuth subcitrate not commercially available

sequential therapy PPI+amoxil bid x 5days,THEN
PPI + clarith 500 mg + metro 500 bid x 5 days - SR of 10 studies - Eradication rates (93% ST vs 77% TT)

ten fold variation in cost

approximately 1/3 of patients will have side effects primarily gastrointestinal (diarrhea, upset stomach) but only 3% will experience side effects severe enough to require withdrawal of therapy

1. H2 antagonist, metronidazole, amoxicillin
2. Bismuth subsalicylate, metronidazole, amoxicillin
3. Bismuth subsalicylate, metronidazole, tetracycline
4. Proton pump inhibitor, bismuth subsalicylate, metronidazole, tetracycline -7 days
5. Proton pump inhibitor, clarithromycin, amoxicillin (Hp-PAC, Losec 1-2-3 A, Nexium 1-2-3 A) -7 days
6. Proton pump inhibitor, amoxicillin, metronidazole
7. Proton pump inhibitor, clarithromycin, metronidazole (Losec 1-2-3 M) - 7 days

Testing for eradication

Only if a complicated ulcer (bleeding), or if symptoms return

PUD if negative H. pylori test

- Cimetidine, ranitidine, famotidine, nizatidine
- Omeprazole, pantoprazole, lansoprazole, esomeprazole, rabeprazole
- Sucralfate
- Misoprostol

Prevention of NSAID - induced ulcers

Misoprostol

Cimetidine, ranitidine, famotidine, nizatidine, omeprazole, pantoprazole, lansoprazole, esomeprazole, rabeprazole

Screen for H. pylori and treat if positive

Eradicating Hp prior to long term NSAIDs ↓ PUD

In those with dyspepsia or previous UGI bleed

10% (Erad + PPI) vs 31% (PPI)

ARR = 19% or NNT = 5

Lancet 2002;359:9

Treatment of NSAID-induced ulcers

- If H. pylori positive
- treat with H. pylori regimen
- If H. pylori negative and NSAID can be stopped
- treat with acid suppressing therapy
- If H. pylori negative and NSAID cannot be stopped
- Omeprazole, pantoprazole, lansoprazole, esomeprazole, rabeprazole
- Misoprostol