Dyspepsia

B C Y Wong 王振宇，S K Lam 林兆鑫

Question:

I am seeing quite a few patients with dyspepsia symptoms. Who should I screen for *Helicobacter pylori* and who should be treated for it? What would be the treatment of choice in Hong Kong?

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Comments to this month's Clinical Challenge

Comments:

Dyspepsia, defined as chronic or recurrent pain or discomfort centered in the upper abdomen, is a common symptom in the community. Which group of dyspepsia patients should be investigated and when remain controversial. Guidelines and consensus reports have been published to assist both family physicians and gastroenterologists to manage their patients.[1,2] For the management of a new patient with dyspepsia, the clinician needs to find out if there is any structural abnormality. In about 60-80% of the patients being investigated, a diagnosis of functional dyspepsia will be made. However, without investigation one cannot be certain of this diagnosis. For example, peptic ulcer, gastric cancer and gallstones cannot be reliably diagnosed based on classical symptoms alone. Physical examination and routine haematological and biochemical investigations are also usually unhelpful. At this point the clinician needs to decide whether further investigation is necessary. The patient's perception of his or her presenting symptoms also plays a significant role in the management strategy. Patients may or may not be bothered by their presenting symptoms. Instead, psychosocial factors including fear of serious disease may be important reasons for their attendance at the doctor's office.[3]

The recommendations given here are based mainly on the guidelines from the first Asian Pacific working party on functional dyspepsia.[1] **(Figure 1)** Patients should be broadly divided into three groups. Those with a well-defined history of biliary pain, irritable bowel syndrome or gastro-oesophageal reflux, should be investigated and treated accordingly. Those with dyspeptic symptoms lasting less than four weeks should be reassured that the symptoms are unlikely to have a structural cause. However, they should be followed up and if symptoms persist or change, further investigation should then be undertaken. The last group of patients, those with dyspepsia for more than four weeks, should be divided into low risk or high risk sub-groups by going through the checklist below. The management will depend on which sub-group they belong to.

Patients at high risk include those

(1) with alarming features (weight loss, dysphagia, vomiting, severe pain, evidence of bleeding, fever, jaundice, an abdominal mass or lymphadenopathy,
(2) with a fear of disease,
(3) who have been taking long-term non-steroidal anti-inflammatory drugs in therapeutic doses, and
(4) in an age group considered at higher risk of serious conditions such as cancer. The age threshold varies with the country and is usually between 35 and 50 years.

Patients with these risk factors should be referred for upper gastrointestinal endoscopic examination.

Patients in the low risk sub-group are considered to have functional dyspepsia. If the symptoms persist for more than four weeks, they can be started on an empirical drug trial, which may include

(1) anti-secretary drugs such as H_2-antagonists and proton-pump inhibitors,
(2) prokinetics such as dopamine receptor blockers like domperidone and metoclopramide. The use of cisapride has become controversial recently and will not be elaborated further here.

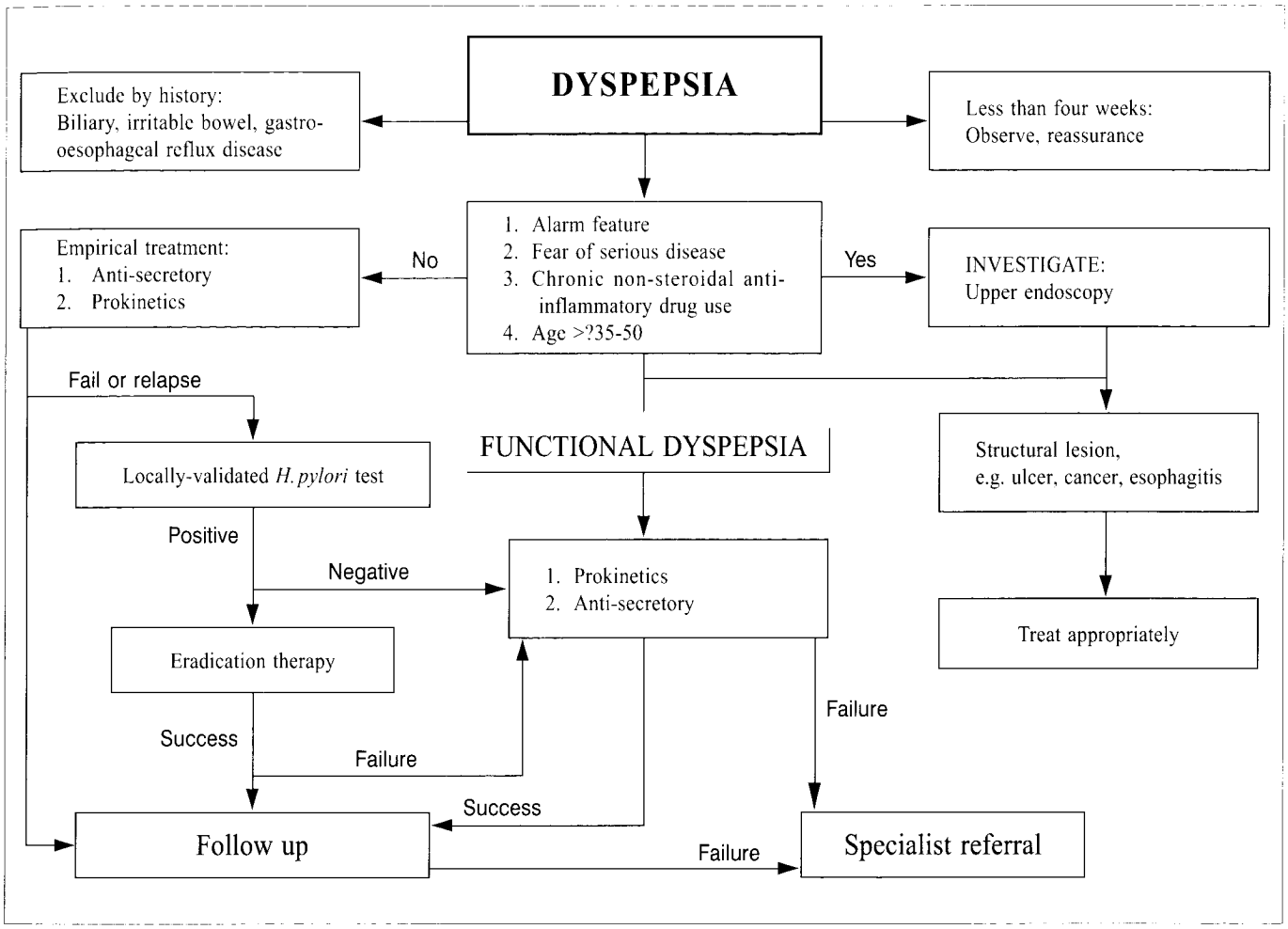
These treatments should be given for no longer than eight weeks. If there is a clinical response, patients can be followed up with no further investigation.

Patients who fail to respond to the treatment or who relapse while being followed up require further investigation. Testing for *Helicobacter pylori* is recommended at this stage. It is important that the test used must be locally validated; doctors should avoid using office testing kits which are known to have poor sensitivity.[4] The 13 Carbon-urea breath test is the most accurate non-invasive test and should be the test of choice. If the test is positive, treatment is usually given. Before beginning treatment, it is important to warn the patient that elimination of *H.pylori* will heal peptic ulcer, if present, but may not relieve symptoms in non-ulcer dyspepsia. A number of recent, large, well-conducted randomised controlled trials have suggested that eradication of *H.pylori* has no benefit over placebo in

B C Y Wong, MBBS, MRCP(UK), FHKCP, FHKAM(Med)
Associate Professor,
Division of Gastroenterology and Hepatology.
S K Lam, MD, FRCP(Lond, Edin, Glasg), FHKCP, FHKAM(Med)
Professor and Head of Department,
Chief of Division of Gastroenterology and Hepatology, Department of Medicine, The University of Hong Kong.

Correspondence to: Dr B C Y Wong, Department of Medicine, The University of Hong Kong, Queen Mary Hospital, Hong Kong.

Figure 1: Management of dyspepsia



resolving symptoms of dyspepsia, during one-year of follow up. Patients who test negative for *H.pylori* or who fail to respond to *H.pylori* eradication therapy can be given empirical therapy as described above, with the possibility of switching to the other group or a combination if the initial group fails. When repeated empirical therapy and *H.pylori* eradication fail to relieve the symptoms, the patient should be referred to a specialist for re-evaluation. In general upper gastrointestinal endoscopy does not need to be repeated.

The treatment of choice for *H.pylori* eradication recommended in the Asia Pacific Consensus Report[5] is a seven-day course of triple therapy. Several regimes that attain eradication rates of 90% or greater by per-protocol analysis can be considered:

(1) Proton-pump inhibitor (PPI) in standard dose + clarithromycin 500 mg + amoxicillin 1000 mg, each given twice daily;
(2) PPI in standard dose + clarithromycin 500 mg + metronidazole 400 mg, each given twice daily;
(3) Ranitidine bismuth citrate (RBC) 400 mg + clarithromycin 500 mg + amoxicillin 1000 mg, each given twice daily;
(4) RBC 400 mg + clarithromycin 500 mg + metronidazole 400 mg, each given twice daily.

In general, regimes containing amoxicillin are recommended in Hong Kong because of the high metronidazole resistance rate of around 50%.[6] If clarithromycin is not available or is contraindicated, the following regimes can be used:

(1) PPI in standard dose + amoxicillin 1000 mg + metronidazole 400 mg, each given twice daily for seven days; or
(2) Colloidal bismuth subcitrate 120 mg four times daily + metronidazole 400 mg twice daily + tetracycline 500 mg four times daily for 14 days.

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These regimes result on average in an eradication rate about 10% lower than the clarithromycin-containing regimes.[7]

Post-treatment testing should be performed at least four weeks after the completion of drugs. If endoscopy is repeated, mainly for patients with gastric ulcers, a combination of the rapid urease test and histology should be used. If endoscopy is not indicated, 13 Carbon-urea breath test is the test of choice. Serology should not be used to monitor short-term treatment success because the titre may remain elevated for months to years.

In conclusion, testing for *H. pylori* is recommended if a patient in the low risk group fails to respond to empirical therapy after eight weeks. The test used should be locally validated with a sufficiently high accuracy. Patients should be reminded that eradication of *H. pylori* in an attempt to 'cure' functional dyspepsia is no better than placebo. ■

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