Don't Get Burned

Making Sense of Dyspepsia

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About 30% of adult Canadians will suffer the symptoms of dyspepsia and 7% of services provided by Canadian primary care physicians are related to the management of dyspepsia symptoms.[1] This condition significantly affects quality of life and it is frequently underestimated as a cause of human suffering.

Canadian primary care physicians are fortunate to have extensive research to support their management of dyspepsia. The Canadian Adult Dyspepsia Empiric Treatment (CADET) studies investigated key dyspepsia questions by studying Canadian primary care patients. These studies have provided answers to some important knowledge gaps.

CADET Prompt Endoscopy (PE) found Canadian dyspepsia patients presented to their physicians with a myriad of symptoms.[2] The mean number of symptoms was five, while only 0.1% of patients had only one symptom. Some patients had more than a dozen symptoms of dyspepsia .

Jane's case

Jane, 45, is a lawyer. She complains of long and stressful work hours, which have resulted in changes to her lifestyle.

She no longer exercises and she eats fast foods at odd times. She is gradually gaining weight. She is worried because, for a few months, she has been having epigastric burning and pain with bloating, belching, and occasional heartburn. She wonders whether her symptoms are caused by an ulcer, or something worse.

Can she be managed safely without needing an endoscopy or upper gastrointestinal series?

Finding the cause

Clinicians must meet the challenge of determining whether or not dyspepsia symptoms originate in the upper gastrointestinal (GI) tract. The greatest risk in assessing dyspepsia patients is the misclassification of a cardiac problem or other disease as dyspepsia.

Is it malignant?

Specific symptoms (Table 1) identify the patients who will have to urgently undergo an endoscopic search for complications of peptic ulcer or malig-

Table 1
Alarming symptoms

- Vomitting
- Bleeding/anemia
- Abdominal mass/weight loss
- Dysphagia

nancy in the upper GI tract. Patients who have one or more of these alarming features, or who are over 50, should be tested for malignancy as the cause of their dyspepsia, particularly if they've had a recent onset of progressively worsening symptoms.

CADET PE provided results of endoscopic exams for over 1,000 unselected dyspepsia patients soon after they presented to Canadian primary care physicians. Only two patients in this large study had an upper GI malignancy and both patients were over 50. There is strong enough evidence to reassure family physicians that it is safe to manage dyspepsia patients without endoscopy when they are under 50 and do not have alarming features.

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What else is important to know?

Besides age and symptoms, there are three more questions to ask in the assessment of patients with dyspepsia:

1. Has this patient been taking non-steroidal anti-inflammatory drugs (NSAIDs) or acetylsalicylic acid (ASA)?
2. Does the patient have heartburn or regurgitation suggesting gastroesophageal reflux disease (GERD)?
3. Does the patient have a *Helicobacter pylori* (*H. pylori*) infection?

The trouble with NSAIDs

Chronic use of NSAIDs increases dyspepsia risk. Dyspepsia patients taking NSAIDs should consider switching to a cyclooxygenase-2 inhibitor or using a proton pump inhibitor (PPI) for optimal cytoprotection. Famotidine, 40 mg twice daily, or misoprostol, 200 mcg three to four times daily, can be used as alternatives, but are suboptimal choices for cytoprotection.

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What about heartburn?

The CADET Heartburn (HR) 5 study provides information on the management of uninvestigated dyspepsia patients with dominant heartburn. This study and many others have found the best therapeutic outcomes result when using PPIs. CADET PE showed dyspepsia patients with dominant heartburn have a > 50% chance of having esophagitis, and PPIs are the recommended treatment for esophagitis.

What is H. pylori's role?

The clinician's final task when assessing patients with dyspepsia is to determine the patients *H. pylori* status. *H. pylori* testing, preferably using the C13 urea breath test, is indicated. The Canadian *Helicobacter Pylori* Study Group provides management advice for those who test positive for *H. pylori* infection. The recommended treatment protocol includes a PPI, clarithromycin, 500 mg, and amoxicillin, 1 g, all given twice daily for seven to 10 days. If the patient cannot take amoxicillin, the physician may substitute it for metronidazole, 500 mg. Quadruple therapy may also be considered as an alternative, using a PPI twice daily, along with four times daily treatment with bismuth (two tablets), metronidazole, 500 mg, and tetracycline, 500 mg. The *H. pylori* arm of the CADET studies (CADET HP) has shown that one in seven dyspepsia patients treated with quad therapy will have lasting relief of dyspepsia and significantly reduced risk of ulcers and ulcer complications.[3,4]

Take-home message

When should endoscopy be done?

This test should be performed when the patient is over 50 and presents with certain alarming symptoms (such as vomitting, bleeding/anemia, abdominal mass/weight loss, and dysphagia), where symptoms are progressively worsening.

What could be the cause of dyspepsia?

Some causes include:

- Gastric irritants, such as NSAIDs
- Peptic ulcers
- GERD
- Abdominal malignancy
- *H. pylori* infection

It is extremely important to determine the cause of dyspepsia to provide safe and effective management.

Patients who do not have the *H. pylori* infection do best when treated with a PPI or, alternatively, treatment can be considered with H2 receptor antagonist. This treatment would manage dyspepsia in low-risk patients who are not taking NSAIDs, those whose symptoms do not suggest GERD, and those who are *H. pylori*-negative.

Once cisapride was removed from the market in 2000, there was no remaining evi-

dence-based indication for the use of a prokinetic medication in dyspepsia patients.[5]

Giving GPs confidence

Dyspepsia patients can be safely and efficiently managed in primary care without a referral for endoscopy or upper GI series if the clinician follows this evidence-based management plan. Primary care physicians can have the satisfaction of knowing their care is based on peer-reviewed research focused on Canadian primary care patients, and comprehensive review articles specifically designed to meet the needs of Canadian primary care physicians. Dx

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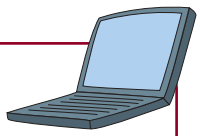

1. The Canadian Helicobacter pylori Web site: *www.canadianhp.com/english/dyspepsia.html*
2. The Canadian Association of Gastroenterology: *www.cag-acg.org*