Letters to the Editor

Testing for and Treating the Underlying Causes of Dyspepsia

Original Article: Update on the Evaluation and Management of Functional Dyspepsia

Issue Date: March 1, 2011

Available at: http://www.aafp.org/afp/2011/0301/p547.html

TO THE EDITOR: I would like to comment on the excellent review of functional dyspepsia by Drs. Loyd and McClellan. The authors discuss the diagnosis of *Helicobactor pylori* infection using noninvasive tests such as serologic, stool antigen, or urea breath tests. The authors state that "serologic testing is the most common because of its wide availability and low cost, although urea breath testing is more accurate." I would add the following information from the 2007 American College of Gastroenterology guideline on the management of *H. pylori* infection.[1] The serologic test has a high negative predictive value, which means that if the test is negative, the patient is very likely not infected. However, serologic testing is not recommended if the patient has ever been treated for *H. pylori* infection, or if the background incidence of infection is high, because serologic tests have a low positive predictive value due to the persistence (possibly for years) of antibodies to *H. pylori* after eradication of the infection. The American College of Gastroenterology recommends using the urea breath test or the stool antigen test for detecting active *H. pylori* infection because both tests have high positive and negative predictive values. The choice of test should be determined by availability and cost. The stool antigen test has been found to be the most cost-effective test[2] and, unlike the urea breath test, does not expose the patient to radiation or require specialized equipment at the location of care.

I would also like to comment on the use of erythromycin as a prokinetic agent to treat gastroparesis as a cause of dyspepsia. Erythromycin is known for causing gastrointestinal pain that can be severe, which would not benefit a patient who already has dyspepsia. Instead, I would suggest a trial of azithromycin (Zithromax) because it shares the prokinetic properties of erythromycin[3] but is less likely to cause painful dyspepsia as an adverse effect.

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IN REPLY: We appreciate the excellent comments offered by Dr. Keller and agree that if a patient has ever been treated for *Helicobactor pylori* infection, the stool antigen test or the urea breath test, if available, would be preferable to serologic testing. In one of our local hospitals, the stool antigen test is less expensive than the serum antibody test with about the same turnaround time. However, it does require stool collection and processing, which may be a barrier to test adherence for some patients.

According to a small study of patients undergoing evaluation for chronic digestive problems or gastroparesis, azithromycin stimulates antral activity similar to erythromycin, but has a longer duration of effect.[1] Though often better tolerated and requiring a less frequent dosing schedule, azithromycin costs roughly 10 times more than the same dosage of erythromycin. We encourage

physicians to individualize prokinetic therapy for their patients depending on tolerance of adverse effects and cost.

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Newborns with Significant Jaundice for Their Age Should Be Tested for Hyperbilirubinemia

Original Article: Screening of Infants for Hyperbilirubinemia to Prevent Chronic Bilirubin Encephalopathy [Putting Prevention into Practice]

Issue Date: August 15, 2010

Available at: http://www.aafp.org/afp/2010/0815/p411.html

TO THE EDITOR: We were disappointed with the "Putting Prevention into Practice" article on screening for hyperbilirubinemia. The case study described K.J., a 24-hour-old full-term boy, who was noted to be jaundiced on his chest. The third case study question is, "Based on K.J.'s risk factors for hyperbilirubinemia, what is the appropriate next step?" The answer listed as correct is, "Do not screen K.J. because there is not enough evidence to recommend screening."

We disagree with this answer. Screening is defined as "the application of a test to detect a potential disease or condition in people with no known signs or symptoms of that disease or condition."[1] A lack of evidence to recommend screening for hyperbilirubinemia does not apply to K.J., because he is jaundiced on his chest at 24 hours of age. This is an unusual and potentially worrisome finding. Although visual estimation of jaundice is only approximate, jaundice on the chest suggests a total serum bilirubin level of somewhere between 6 and 12 mg per dL (102.62 and 205.25 μmol per L).[2] At 24 hours of age, the high-risk zone for total serum bilirubin begins at about 8 mg per dL (136.83 μmol per L), and the American Academy of Pediatrics recommends phototherapy in otherwise full-term newborns at 11.7 mg per dL (200.12 μmol per L).[3] Thus, K.J.'s jaundice is a sign of possible hyperbilirubinemia that may require treatment, and the appropriate next step for K.J. is to measure a serum bilirubin level.

As Dr. Ganiats wrote in an editorial in the same issue of *American Family Physician*, "A more aggressive approach to screening for hyperbilirubinemia does not have good evidence to support it, nor is it justified to abandon what we have been taught just because there is insufficient evidence at this time. In this case, a middle ground is best: continuing current practice while we wait for better evidence."[4] Current practice, as described in virtually every textbook and in the American Academy of Pediatrics guidelines for the past 16 years, is to measure a bilirubin level in newborns with jaundice in the first 24 hours after birth.[3,5] Any other recommendation presents a potentially dangerous departure from current practice and a misinterpretation of the U.S. Preventive Services Task Force report on screening for hyperbilirubinemia.

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IN REPLY: After reviewing our case study and the U.S. Preventive Services Task Force (USPSTF) recommendation statement on screening infants for hyperbilirubinemia to prevent chronic bilirubin encephalopathy,[1] we agree with the concerns expressed by Drs. Newman and Maisels. The USPSTF recommendation statement applies only to healthy term or near-term infants (at least 35 weeks' gestational age) without signs or symptoms of hyperbilirubinemia. The patient in our original case study was visibly jaundiced within the first 24 hours of life and, therefore, measurement of a serum bilirubin level would be indicated as a diagnostic, rather than a screening test. We have corrected the online version of the case study to state that the infant, K.J., was not visibly jaundiced at the time of the physician's examination.

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1. U.S. Preventive Services Task Force. Screening of infants for hyperbilirubinemia to prevent chronic bilirubin encephalopathy: U.S. Preventive Services Task Force recommendation statement. *Pediatrics*. 2009;124(4):1172-1177.

Correction

In the "Putting Prevention into Practice" titled "Screening of Infants for Hyperbilirubinemia to Prevent Chronic Bilirubin Encephalopathy" (August 15, 2010, page 411), the patient in the case study was incorrectly described as having jaundice in the sentence "During rounds, you notice jaundice on K.J.'s chest" (page 411). This sentence should have read "K.J. does not appear jaundiced on examination." The article has been corrected online. ■