



inefficient. The authors sought to determine whether contrast-enhanced multidetector computed tomography (MDCT)-based detection of stenosis is feasible and improves early and accurate triage of patients with acute chest pain.

The authors studied 40 patients (53% men; mean age, 57 ± 13 years) with chest pain who were awaiting hospital admission to rule out an acute coronary syndrome despite the absence of diagnostic ECG changes and normal cardiac enzymes on ED presentation. Patients underwent contrast-enhanced MDCT before hospital admission.

All five patients (12.5%) with ACS (one with non-ST elevation myocardial infarction, four with unstable angina pectoris) had at least one significant coronary stenosis on MDCT (sensitivity, 100%). ACS was ruled out in 35 patients (87.5%). Significant coronary stenosis was excluded in 26 of the 35 patients without ACS by MDCT (specificity, 74%), potentially saving 70% of unnecessary hospital admissions.

MDCT-based detection of significant coronary stenoses has tremendous potential to decrease the number of unnecessary hospital admissions, without reducing appropriate admission rates, in patients with chest pain who have nondiagnostic ECG results and normal cardiac enzymes. ■

### Atypical Clinical Features of Pediatric Appendicitis

**Citation:** Becker T, Kharbanda A, Bachur R. *Acad Emerg Med.* 2006;14:124-129.

**URL:** <http://www.aemj.org/cgi/content/abstract/14/2/124>

**Key point:** Forty-four percent of patients with proven appendicitis had six or more atypical characteristics.

The diagnosis of appendicitis remains challenging in children. Delays in diagnosis or misdiagnosis have important medical and legal implications. The typical, or classic, presentation of pediatric appendicitis has been modeled after adult disease; however, many children present atypically with subtle findings or unusual signs.

Children and adolescents with suspected appendicitis were enrolled over 20 consecutive months. Pediatric emergency physicians completed standardized data collection forms on eligible patients.

Seven hundred fifty-five patients were enrolled. The median age was 11.9 years; 36% of patients were diagnosed with appendicitis.

The most common atypical features included:

- absence of pyrexia (83%)
- absence of Rovsing's sign (68%)
- normal or increased bowel sounds (64%)
- absence of rebound pain (52%)
- lack of migration of pain (50%)
- lack of guarding (47%)

- abrupt onset of pain (45%)
- lack of anorexia (40%)
- absence of maximal pain in the right lower quadrant (32%)
- absence of percussive tenderness (31%).

Forty-four percent of patients with proven appendicitis had six or more atypical characteristics. The median number of atypical features for patients with proven appendicitis was five.

The greatest negative predictors, on the basis of likelihood ratios, were as follows:

- white blood cell count (WBC) of <10,000 per cubic millimeter (likelihood ratios [LR], 0.18)
- absolute neutrophil count (ANC) of <7,500 per cubic millimeter (LR, 0.35)
- lack of percussive tenderness (LR, 0.50)
- lack of guarding (LR, 0.63)
- no nausea or emesis (LR, 0.65).

Two atypical features are the strongest negative predictors of appendicitis in children: WBC of <10,000 per cubic millimeter and an ANC of <7,500 per cubic millimeter. ■

### Update on *Helicobacter pylori* Treatment

**Citation:** Ables AZ, Simon I, Melton ER. *Am Fam Physician.* 2007;75:351-358

**URL:** <http://www.aafp.org/afp/20070201/351.html>

**Key point:** A "test-and-treat" strategy is recommended for most patients with undifferentiated dyspepsia.

One half of the world's population has *Helicobacter pylori* infection. Although it is unclear whether eradication of *H pylori* improves symptoms in patients with nonulcer dyspepsia, there is strong evidence that eradication of this bacterium improves healing and reduces the risk of recurrence or rebleeding in patients with duodenal or gastric ulcer.

A "test-and-treat" strategy is recommended for most patients with undifferentiated dyspepsia. With this approach, patients undergo a noninvasive test for *H pylori* infection and, if positive, are treated with eradication therapy. This strategy reduces the need for antisecretory medications as well as the number of endoscopies. The urea breath test or stool antigen test is recommended.

Until recently, the recommended duration of therapy for *H pylori* eradication was 10 to 14 days. Shorter courses of treatment (i.e., one to five days) have demonstrated eradication rates of 89% to 95% with the potential for greater patient compliance. A one-day treatment course consists of bismuth subsalicylate, amoxicillin, and metronidazole, all given four times with a one-time dose of lansoprazole. In children with documented *H pylori* infection, however, all regimens should continue to be prescribed for seven to 14 days until short-course treatment is studied and its effectiveness has been established. ■