

## CLINICAL CAPSULES

### Detecting Colorectal Ca From Feces

Fecal DNA testing detects advanced colorectal neoplasia in asymptomatic patients at average risk for colorectal cancer with a significantly greater sensitivity than fecal occult-blood testing, reported Thomas F. Imperiale, M.D., of Indiana University, Indianapolis, and his associates.

In 418 patients with advanced neoplasia (tubular adenoma 1 cm or larger, villous polyp, polyp with high-grade dysplasia, or cancer), fecal DNA testing had a significantly greater sensitivity than fecal occult-blood testing (18% vs. 11%). The sensitivity of fecal DNA testing was 52% in detecting invasive cancer alone and 41% for carcinoma in situ and invasive cancer together. Fecal occult-blood testing remained nearly the same at 13% and 14%, respectively (N. Engl. J. Med. 2004;351:2704-14).

Other studies of fecal DNA testing have reported sensitivities of 64% and 90% for cancer, but they tested patients known to have colorectal cancer and not asymptomatic patients. Colonoscopy was the reference standard in this study, which included 2,507 patients with an average age of 70 years. Dr. Imperiale and most of his colleagues in the study reported that they have received consulting fees or grants from, own shares in, or have been employed by Exact Sciences, which funded the trial and analyzed stool samples.

### Diabetes in Chronic Hepatitis C

Type 2 diabetes is independently associated with histologically advanced chronic hepatitis C infection, according to the results of a prospective cross-sectional study.

The prevalence of type 2 diabetes mellitus (DM) in patients with chronic hepatitis C virus (HCV) infection ranged from 5% among 80 patients with early histological disease (fibrosis stage 0-2) to 21% among 56 patients with advanced histological disease (fibrosis stage 3-4), reported Claudia O. Zein, M.D., of the Mayo Clinic and Foundation, Rochester, Minn., and colleagues. Patients with advanced histological disease had a significantly higher prevalence of DM than the general population (8%) and a control cohort of 179 patients from the same institution with either primary biliary cirrhosis or primary sclerosing cholangitis (7%), regardless of the presence of advanced histological disease in the control patients (Am. J. Gastroenterol. 2005;100:48-55).

Advanced histological hepatitis C and family history of DM remained independently associated with DM after controlling for other diabetes risk factors and other variables. None of the patients with chronic hepatitis C infection had taken interferon or corticosteroids.

### Hemorrhoidectomy Methods Compared

Hemorrhoidectomy performed with a Ligasure hemostatic device causes less postoperative pain and takes less time to do than hemorrhoidectomy with the Harmonic Scalpel, reported Shek Yuen Kwok, M.D., and colleagues at the Pamela Youde Netherstone Eastern Hospital, Hong Kong.

Seven days after patients with a total of three grade 3 or 4 hemorrhoids underwent a hemorrhoidectomy in a single-blind, randomized trial, the median postoperative pain score (assessed pain with a

visual analog score) for the 24 patients in the Ligasure group was significantly lower than that for 23 patients in the Harmonic Scalpel group (2.6 vs. 4.8) (Dis. Colon Rectum [online] Dec. 21, 2004).

The Ligasure operation took significantly less time to perform than did the procedure using the Harmonic Scalpel (11 min. vs. 18 min.). No differences in complications or other parameters were found.

### Endoscopic Enteryx Therapy for GERD

Augmentation of the lateral esophageal sphincter with the Enteryx procedure can

significantly reduce heartburn symptoms and the use of proton pump inhibitors (PPIs) in gastroesophageal reflux disease patients, reported Jacques Deviere, M.D., of the Free University of Brussels and his colleagues.

Of 32 patients who underwent the procedure—endoscopic implantation of Enteryx, a nonresorbable copolymer—in a randomized, patient-blinded trial, 78% reduced their use of PPIs by 50% or more after 3 months, compared with 53% of 32 patients who underwent a sham procedure consisting of an upper GI endoscopy. The GERD health-related quality-of-life heartburn score improved 3 months after the

procedure by a significantly greater amount on average in Enteryx patients than in sham patients (63% vs. 25%) (Gastroenterology [online] accepted Dec. 4, 2004;www.gastrojournal.org).

Around the time of the 3-month follow-up, 20 of 23 patients in the sham group who were eligible for Enteryx treatment underwent the procedure, whereas 6 of 9 eligible patients in the Enteryx group were retreated. Six months after the initial procedure, PPI usage and heartburn symptoms remained stable in the Enteryx group and improved in the sham group because many of the patients in that group.

—Jeff Evans

## ADVERTISEMENT

# YALE UNIVERSITY STUDY FINDS INSULIN PUMP THERAPY WORKS BETTER THAN LANTUS®



First randomized, prospective study directly comparing insulin pumps versus injections with Lantus in pediatric patients concludes that insulin pump therapy is better for blood sugar control<sup>1</sup>

Several studies have shown that insulin pump therapy leads to better control than multiple daily injections.<sup>2-4</sup> A recent study at the Yale University School of Medicine now shows that insulin pump therapy is also more effective than multiple daily injections with Lantus.<sup>1</sup>

The randomized prospective 16-week study published in the July 2004 peer-reviewed issue of *Diabetes Care* compared Medtronic insulin pumps with multiple daily injections with Lantus in 32 children with Type 1 diabetes.

Pre-meal and bedtime blood glucose levels were 25-55 mg/dL lower in the insulin pump therapy group than in the Lantus group. A significant reduction in HbA<sub>1c</sub> levels was also found in the insulin pump group with no significant change in the Lantus group. Fifty percent of the insulin pump group met the American Diabetes Association (ADA) HbA<sub>1c</sub> "treat-to-target" guideline of 7% or less, compared to only 13% of the Lantus group.<sup>1</sup>

After the study, 75% of the Lantus group switched to insulin pump therapy while 88% percent of the insulin pump group continued on insulin pump therapy. For more information on the Yale study and the world-leading Medtronic MiniMed Paradigm® Platform of insulin pumps, visit [www.minimed.com](http://www.minimed.com).

*"Insulin pump therapy allows for more immediate and precise fine tuning of insulin dosages that is not possible with injection therapy. We believe this is one of the main reasons why it has been so successful in pediatric patients."*

— Elizabeth (Boland) Doyle, MSN, APRN, CDE, Yale School of Medicine

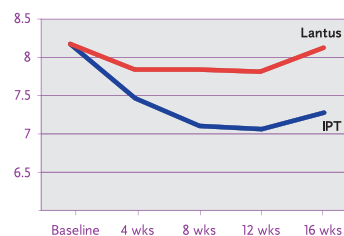
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## KEY STUDY FINDINGS

- Six times as many insulin pump patients as Lantus patients met ADA HbA<sub>1c</sub> targets
- Insulin pump patients achieved better control before lunch and dinner, and at bedtime than Lantus patients
- 75% of Lantus patients later switched to insulin pump therapy<sup>1</sup>

### Metabolic control (HbA<sub>1c</sub>) Insulin pump therapy vs. Lantus



At 16 weeks, HbA<sub>1c</sub> levels in the insulin pump therapy (IPT) group were significantly lower vs. Lantus ( $P < 0.05$ ).<sup>1</sup>

### Meal glucose levels (mg/dL) Insulin pump therapy vs. Lantus



Insulin pump therapy patients had lower glucose levels at lunch, dinner and bedtime ( $P < 0.001$ ).<sup>1</sup>

\*At randomization, two insulin pump patients and one Lantus patient had met the ADA goal.