

Capsule endoscopy diagnoses more Crohn's disease recurrence after surgery than colonoscopy

September 26 2007

Research from La Fe University Hospital in Valencia, Spain shows that capsule endoscopy diagnoses more Crohn's disease recurrence after surgery than colonoscopy. Capsule endoscopy led to changes in therapy for more than half of the patients studied. The research appears in the September issue of *Gastrointestinal Endoscopy*, the monthly peer-reviewed scientific journal of the American Society for Gastrointestinal Endoscopy.

Crohn's disease is a chronic condition that causes inflammation in the gastrointestinal tract, most commonly affecting the small intestine and colon (large intestine). According to the Crohn's and Colitis Foundation of America, approximately half a million people in the United States have Crohn's disease. Researchers do not know what causes the disease and there is no cure, so the goal of treatment is to reduce the inflammatory response. Surgery becomes necessary when medication can no longer control symptoms. In most cases, the diseased segment of the intestines is removed, this is called a resection. The two sections of the remaining healthy intestines are joined together in a procedure called anastomosis. While patients may live symptom-free for years, surgery is not a cure and disease frequently recurs at or near the site of the anastomosis.

Colonoscopy is the gold standard in screening for colorectal cancer, which develops in the large intestine. It is effective in diagnosing

diseases of the large intestine and in viewing the end part of the small intestine. Capsule endoscopy allows physicians to view the entire small intestine, but is not currently a method used to view the large intestine.

“Crohn’s disease occurs in both the small and large intestines. In this study we found that compared to colonoscopy, capsule endoscopy was able to identify Crohn’s disease recurrence in 62 percent of patients, whereas colonoscopy only identified inflammatory lesions in 25 percent of patients,” said the study’s lead author Vicente Pons Beltrán, MD, PhD, La Fe University Hospital. “We believe this is due to capsule endoscopy’s ability to visualize the entire small intestine, including parts of the upper small intestine that colonoscopy is not designed to reach.”

Capsule endoscopy allows physicians to examine the lining of the middle part of the gastrointestinal tract, which includes the three portions of the small intestine (duodenum, jejunum, ileum). A tiny camera is contained inside of a pill that the patient swallows. It captures images of the gastrointestinal tract as it travels through the body and transmits the images to a computer so the physician can view them and make a diagnosis.

Patients and Methods

Recurrence after surgery to treat Crohn’s disease is frequent and unpredictable. The efficacy of post-surgery capsule endoscopy in detecting recurrence in patients with Crohn's disease is yet to be confirmed. The objective of this study was to assess the safety, accuracy, and therapeutic impact of capsule endoscopy. Twenty-four Crohn’s disease patients from La Fe University Hospital in Valencia, Spain who had ileocolonic resection, followed by reconnection of the ileum to the colon, were subjects in the study.

All patients were asymptomatic and not on any medical therapy for Crohn’s disease. Colonoscopy and capsule endoscopy were used to

visualize and assess Crohn's disease at the anastomosis and in the remaining small intestine. Capsule endoscopy was performed within two weeks of colonoscopy. Investigators were blinded to the results of each technique. Patient comfort during the procedures was also recorded.

Results

A colonoscopy was performed in all patients, although the end part of the small intestine could not be reached in three of them. Two of the patients had a narrowing in the small intestine, which precluded capsule endoscopy from being performed.

Recurrent Crohn's disease was visualized in the remaining end of the small intestine with colonoscopy in six patients; capsule endoscopy identified five of these six patients plus another ten patients with disease recurrence higher up in the small intestine. A decision to modify therapy was made in 13 patients. Colonoscopy alone would have led to this decision in six patients; capsule endoscopy alone provided data in the remaining seven patients.

All patients preferred capsule endoscopy, an expected finding in this study where only one third of the patients undergoing colonoscopy received sedation. Researchers concluded that capsule endoscopy is of great use in the evaluation and treatment of recurrent Crohn's disease. While colonoscopy remains the gold standard for evaluation of the colon and tissue acquisition, the capsule provides an invaluable window into the sizable small bowel inaccessible by colonoscopy. The two methods are complimentary in diagnosing and treating diseases of the gastrointestinal tract.

Source: American Society for Gastrointestinal Endoscopy

Citation: Capsule endoscopy diagnoses more Crohn's disease recurrence after surgery than colonoscopy (2007, September 26) retrieved 25 April 2024 from <https://medicalxpress.com/news/2007-09-capsule-endoscopy-crohn-disease-recurrence.html>

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