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*Capsule Endoscopy: A Single Centre Experience with the First 192 Capsules*

A capsule-sized camera has demonstrated a 50 per cent yield in detecting a source of obscure bleeding in the small intestine according to a study released on February 29, 2004 at the Canadian Association of Gastroenterology in Banff, Alta.

The capsule may lead to a more specific and appropriate diagnosis and is less invasive than some options including exploratory surgery.

“With 50 per cent of capsules, we were able to determine the source of bleeding and one-third of those required surgery,” said Dr. Robert Enns (Gastroenterology, St. Paul’s Hospital, University of British Columbia) on the abstract *Capsule Endoscopy: A Single Centre Experience with the First 192 Capsules*.

The capsule, like a large pill is swallowed by the patient and takes approximately 8 hours to pass through the patient’s small intestine. As it passes through it takes one image every 0.5 seconds. These images are transmitted to a data recorder worn around the patient’s waist. At the end of 8 hours the data recorder is removed from the patient and the 55,000 images downloaded to a computer workstation. The individual images are ‘run together’ to produce a streaming video (in a similar fashion to a cartoon) that is used to identify the source of bleeding in the 25 feet of small intestine. The capsule is 11x26 millimetres in size.

“With bleeding disorders, many of these patients have had several endoscopic procedures. The other option includes going to the operating room and looking in the bowel with a full operation. Prior to capsules some patients would go to operating rooms and occasionally, we wouldn’t find anything,” said Dr. Enns.

The results of 192 capsule studies were performed in 175 patients. The indications included 144 cases of obscure bleeding, 10 for anemia, 11 for IBD. In the setting of obscure bleeding a definite source of bleeding was discovered in 72 cases (50 per cent effectiveness).

“Capsule use can provide a more specific and more appropriate diagnosis,” said Dr. Enns. “This allows us to clarify and diagnose the problem in a non-invasive way and suggests action based on the findings. Typically with bleeding we’re looking for a problem that can be fixed.”

The use of the capsule could lead to better resource utilization said Dr. Enns. A study on its use is under way. Once a capsule is used and detects the source of bleeding it likely leads to a faster booking for surgery than the typical booking for exploratory surgery.

Additionally, even if the capsule study is negative, it may prevent further expensive testing by reassuring the patients and referring physicians. Seventy per cent of the capsules in the study were used to detect bleeding; another 30 per cent assess sources of abdominal pain, Crohn’s and Celiac disease.

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