RESEARCH HIGHLIGHTS

ENDOSCOPY

Capsule endoscopy: a new technique for colon cancer screening?

Capsule endoscopy is safe but "the sensitivity for detecting colonic lesion[s] is lower than for colonoscopy", says André Van Gossum, lead researcher of a study that has compared these two methods for the detection of colorectal polyps and cancers.

Optical colonoscopy is currently considered the gold-standard procedure for colon cancer screening. However, this technique has certain limitations, including availability of resources and discomfort for patients. "There is a need to develop noninvasive techniques," explains Van Gossum, and previous studies have demonstrated that capsule endoscopy is safe and feasible. Capsule endoscopy can be carried out without the need for sedation or insufflation, and could, therefore, be a useful additional tool for screening.

In their prospective, multicentre trial, Van Gossum and colleagues compared the accuracy of capsule endoscopy and colonoscopy for the detection of colonic polyps, advanced adenomas and carcinomas. A total of 328 patients were included, and all patients were either known or suspected to have colonic disease.

In addition to the finding that capsule endoscopy is safe but less sensitive than colonoscopy at detecting colonic lesions, the study revealed the importance of the colon-preparation regimen. The sensitivity of capsule endoscopy to detect lesions was significantly higher in patients who had good or excellent colon cleanliness compared with patients who had poor or fair colon cleanliness.

The researchers suggest that improvements should be made to the colon-preparation regimen and they are currently working on a new colonpreparation protocol. In addition,



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a second-generation capsule with improved technology will be available shortly. Studies in typical screening populations are also needed to assess the performance of capsule endoscopy in an average-risk population.

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Original article Van Gossum, A. et al. Capsule endoscopy versus colonoscopy for the detection of polyps and cancer. N. Engl. J. Med. 361, 264–270 (2009).