Capsule Endoscopy Results Mixed in Obscure GI Bleeding

BY SHARON WORCESTER

Capsule endoscopy improved diagnostic yield in patients with obscure gastrointestinal bleeding, but that did not translate into better outcomes in a randomized study comparing the procedure with dedicated small bowel contrast radiography.

Diagnostic yield was significantly greater in 66 patients randomized to undergo capsule endoscopy than in 70 who underwent dedicated small bowel contrast radiography (30% vs. 7%), but the primary end point of further bleeding occurred in 30% of the capsule endoscopy patients, compared with 24% of the contrast radiography patients, the investigators reported (Gastroenterology 2010;May 10:10.1053/j.gastro.2010.01.047).

In patients who had an average age of about 55 years: 54 had overt bleeding and 82 had occult bleeding at randomization. Patients who had overt bleeding at randomization were almost twice as likely as those with occult bleeding to have further bleeding during the study; 39% vs. 20% had further bleeding in the overt and occult bleeding groups, respectively.

Also, those with overt bleeding at randomization who were assigned to the capsule endoscopy group were more likely to have further bleeding, compared with those with overt bleeding assigned to the radiography group (50% vs. 29% had further bleeding, respectively).

Those with occult bleeding at randomization had similar rates of further bleeding regardless of diagnostic treatment; 18% and 21% had further bleeding in the capsule endoscopy and radiography groups, respectively, the investigators noted.

No significant differences were seen between the capsule endoscopy and radiography groups in regard to the need for transfusions, subsequent hospitalization, or additional interventions for diagnosis or treatment of bleeding, said Dr. Loren A. Laine of the University of Southern California, Los Angeles, and his colleagues.

The investigation findings demonstrate that most patients with obscure GI bleeding do well regardless of whether their abnormalities are detected by capsule endoscopy, and that further interventions might be necessary regardless of the success or failure of the procedure.

“In addition, merely visualizing a lesion on capsule (or radiography) does not document that the lesion is the cause of bleeding unless active bleeding or stigmata of recent hemorrhage are also identified,” they wrote.

The findings of this study have no bearing on current recommendations from the American Gastroenterological Association regarding the management of patients with obscure GI bleeding, because the study did not directly assess the AGA management algorithm, which calls for capsule endoscopy after a negative upper endoscopy and colonoscopy in those with obscure GI bleeding, subsequent interventions directed by the findings of a positive capsule endoscopy, and observation or—if warranted—further diagnostic testing in those with no bleeding source identified.

In this study, capsule endoscopy was evaluated only after patients had a negative upper endoscopy, colonoscopy, and push enteroscopy; the investigators used this approach because push enteroscopy has the ability to obtain diagnostic specimens and provide therapy, and because it is likely to identify nearly half of the abnormalities seen on capsule endoscopy, the explained.

“Future randomized trials will need to assess whether push enteroscopy or capsule should be the first test after negative upper endoscopy and colonoscopy and whether capsule endoscopy would improve outcomes if performed prior to push enteroscopy,” they said.

The investigation findings do not rule out the possibility that some patients may benefit from capsule endoscopy, they noted, adding that future studies should also attempt to identify clinical characteristics that help stratify the use of capsule endoscopy and other interventions.

However, the development of technology allowing external control in capsule endoscopy, and equipping it to perform diagnostic and therapeutic interventions, might be necessary before significant improvements in clinical outcomes associated with its use in this population become apparent, they concluded.

Major Finding: In patients with gastrointestinal bleeding, diagnostic yield was significantly greater in 66 patients randomized to undergo capsule endoscopy than in 70 who underwent dedicated small bowel contrast radiography (30% vs. 7%), but the primary end point of further bleeding occurred in 30% of the capsule endoscopy patients, compared with 24% of the contrast radiography patients.

Data Source: A randomized controlled trial.

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