Long-term Outcome in Patients with Obscure Gastrointestinal Bleeding after Capsule Endoscopy

Department of Internal Medicine and Liver Research Institute, Seoul National University College of Medicine, Seoul, Korea

*Ji Eun Kwon, Seong Joon Koh, Jong Pil Im, Jong Kyung Choi, Seung Joo Kang, Sang Gyun Kim, Joo Sung Kim, Hyun Chae Jung, In Sung Song

**Introduction:** Wireless capsule endoscopy (CE) is considered a first-line investigation in patients with obscure GI bleeding (OGIB). However, little information is available about long-term outcome in patients with obscure gastrointestinal bleeding after negative capsule endoscopy. In the present study, we investigated the long-term outcome in patients with OGIB after negative CE examination. **Methods:** A total of 104 consecutive patients underwent CE for OGIB from May 2003 to December 2009 at Seoul National University Hospital. 79 patients (75.9%) with a subsequent follow-up after CE of at least 6 month were enrolled in this study. Clinical information before and after CE was collected. CE findings were classified as highly relevant (P2) or less relevant lesion (P1 or P0) using standard practice guideline. The primary endpoint was detection of rebleeding after CE. Factors associated with increased risk of recurrent bleeding were assessed in patients with negative CE. **Results:** Of the 79 patients (median age 62, range 17-82 years), 50 patients (63.3%) were male. The median duration of follow up was 24.1 months (range 6.0-89.4). 58 patients underwent CE for obscure-overt bleeding. Complete examination of small bowel was achieved in 63 cases. No patients experienced adverse event during and after the CE examination. Significant lesions (P2) were found in 31 patients (39.2%). The overall rebleeding rate was 36.7%. The overall rebleeding rate was higher in patients with a positive CE (48.4%) than those with a negative CE (29.2%). However, there was no significant difference in cumulative rebleeding rates between patients with a positive and a negative study (log rank test; \( p = 0.08 \)). Transfusion before CE examination (hazard ratio 9.322; 95% CI, 1.617-53.758) was associated with an increased risk of recurrent bleeding in patients with OGIB after negative capsule endoscopy. **Conclusion:** Patients with OGIB and a negative CE test have a substantial risk of rebleeding in the long-term follow up, indicating that rigorous follow up should be considered in these patients.