Clinical Impact of Second-look Endoscopy after Endoscopic Submucosal Dissection of Gastric Neoplasms

Hyung Hun Kim, Seun Ja Park, Moo In Park and Won Moon
Department of Internal Medicine, Kosin University College of Medicine, Busan, Korea

**Background/Aims:** One major complication of endoscopic submucosal dissection (ESD) is delayed bleeding. Most hospitals routinely perform second-look endoscopy to lower the chance of delayed bleeding without solid evidence supporting this practice. The aim of this study was to evaluate whether second-look endoscopy prevents delayed bleeding and to verify the clinicopathological features of delayed bleeding to determine how to identify lesions that may need second-look endoscopy.

**Methods:** We investigated 440 lesions in 397 patients who underwent ESD for a gastric neoplasm from January 2008 to June 2010. Clinically evident bleeding from mucosal defects 24 hours after ESD was considered delayed bleeding. We reviewed data including characteristics of patients, lesions, and procedures. Furthermore, the rate of delayed bleeding before and after second-look endoscopy, performed within three days of ESD, was investigated to determine the utility of second-look endoscopy.

**Results:** Delayed bleeding was evident in 9 of 440 lesions (2.0%), and all of which achieved endoscopic hemostasis. The only significant factor predicting delayed bleeding was a resected specimen over 40 mm in size (p=0.003). Delayed bleeding occurred in 8 of 9 cases (89%) before the second-look endoscopy, within 72 hours after ESD.

**Conclusions:** Second-look endoscopy may be useful for preventing post-ESD bleeding, especially when resected specimens over 40 mm.

**Key Words:** Hemorrhage; Endoscopic hemostasis; Gastric Cancer; Adenoma