Polyglycolic acid sheets and fibrin glue decrease the risk of bleeding after endoscopic submucosal dissection of gastric neoplasms (with video).

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Publication Date: 2015

Abstract:

Background The prevention of bleeding after endoscopic submucosal dissection (ESD) for gastric neoplasms is still an important problem. Objective To investigate the efficacy and safety of a shielding method that uses polyglycolic acid (PGA) sheets and fibrin glue to prevent post-ESD bleeding in high-risk patients. Design A nonrandomized trial with historical control subjects. Setting A single academic hospital in Japan. Patients From July 2013 to February 2014, 45 ESD-induced ulcers in 41 patients with a high risk of bleeding were enrolled in a study group. Forty-one consecutive ESD-induced ulcers in 37 control subjects with a high risk of bleeding were treated in 2013 before the first enrollment. Interventions We placed PGA sheets on the mucosal defect and fixed with fibrin glue in the study group. Main Outcome Measurements The post-ESD bleeding rate. Results The post-ESD bleeding occurred at a rate of 6.7% in the study group (3/45 lesions) and 22.0% in the historical control group (9/41 lesions). There was a significant difference in the post-ESD bleeding rate between the 2 groups (P =.041). Limitations A nonrandomized trial with historical control subjects; a single-center analysis; small sample size. Conclusions The endoscopic tissue shielding method with PGA sheets and fibrin glue appears to be promising for the prevention of post-ESD bleeding. (Clinical trial registration number: UMIN000011058.)