

Endoscopic tissue shielding method with polyglycolic acid sheets and fibrin glue to cover wounds after colorectal endoscopic submucosal dissection (with video).

Authors: Tsuji Y., Ohata K., Gunji T., Shozushima M., Hamanaka J., Ohno A., Ito T., Yamamichi N., Fujishiro M., Matsuhashi N., Koike K.

Publication Date: 2014

Abstract:

Background Colorectal endoscopic submucosal dissection (ESD) has made it possible to resect large specimens in an en bloc fashion. However, this can lead to postoperative adverse events, such as perforation and bleeding. Prevention of adverse events after colorectal ESD is therefore an important goal. **Objective** To evaluate the utility of a shielding method using polyglycolic acid (PGA) sheets and fibrin glue to manage ulcers after colorectal ESD. **Design** Prospective, single-arm, pilot study. **Setting** Single tertiary care center for colorectal ESD in Japan. **Patients** Ten patients with 10 colorectal tumors scheduled for ESD were enrolled between September and November 2012. **Interventions** Just after ESD, we placed PGA sheets on the mucosal defect with biopsy forceps. After the whole defect was covered, we sprayed fibrin glue through a special double-lumen spraying tube. We sprayed fibrinogen through 1 lumen and then thrombin through the other lumen. **Main Outcome Measurements** Success rate, mean procedure time, and adverse events associated with the covering technique and the persistence of PGA sheets at follow-up colonoscopy. **Results** All 10 tumors were successfully resected. Mean tumor size was 39.7 +/- 15.2 mm. All mucosal defects were successfully covered with PGA sheets. Mean procedure time was 18.7 +/- 15.9 minutes. No procedure-related adverse events occurred. Upon colonoscopy 9 to 12 days after ESD, the PGA sheets were still fixed on the whole defect in 8 patients. **Limitations** Small sample size. **Conclusions** Our technique, which uses PGA sheets and fibrin glue, appears to shield mucosal defects, and it

may be effective in reducing postoperative adverse events.

Copyright © 2014 American Society for Gastrointestinal Endoscopy.