Epinephrine versus epinephrine plus fibrin glue injection in peptic ulcer bleeding: a prospective randomized trial

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BACKGROUND: Peptic ulcer bleeding remains a disease with considerable morbidity and mortality. Epinephrine is the most widely used endoscopic injection agent, but bleeding recurs in 20% of high-risk cases. Fibrin glue might be an ideal injection agent, based on its physiologic properties, despite its demanding injection technique and high cost. The aim of this study was to determine whether the injection of fibrin glue in combination with epinephrine improves outcome for patients at high risk of recurrent bleeding. METHODS: Patients were prospectively randomized to injection of epinephrine alone (n = 70) or epinephrine plus fibrin glue (n = 65). Endoscopy was repeated daily until the ulcer base was clean. All patients were treated with high-dose omeprazole. RESULTS: Initial hemostasis was 100% in both groups. There was no significant overall difference in rates of recurrent bleeding (24.3% and 21.5%, respectively, for epinephrine and epinephrine plus fibrin). When patients were stratified according to Forrest criteria, no significant difference could be found, although there was a trend toward less recurrent bleeding after fibrin injection of actively bleeding ulcers. There was no significant difference in the proportions of patients who required surgery (10% and 6%, respectively, for epinephrine and epinephrine plus fibrin). Mortality was the same (3%) in each group. CONCLUSIONS: Adding fibrin glue to epinephrine for injection treatment of bleeding peptic ulcers does not improve outcome. Fibrin glue might be of some value in selected cases.