Comparison of the hemostatic effect of endoscopic injection with fibrin glue and hypertonic saline-epinephrine for peptic ulcer bleeding: A prospective randomized trial.

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Abstract:

Background and Study Aims: Although endoscopic injection therapy using various agents has been considered the least expensive and most effective technique in obtaining hemostasis in peptic ulcer bleeding, most of these agents induce tissue necrosis or degeneration. Theoretically the injection of fibrin glue (FG) to halt peptic ulcer bleeding may be safer than the use of other agents, but randomized clinical trials to compare the efficacy of FG and other agents are rare. The aim of this study was to compare the hemostatic efficacy between FG and hypertonic saline-epinephrine (HSE) in peptic ulcer bleeding. Patients and Methods: From March 1992 to December 1993 we conducted a prospective randomized trial in 127 patients with peptic ulcer bleeding, in whom a visible vessel or active bleeding was identified. Patients were randomized into two groups, an FG group comprising 64 patients who received FG injections, and an HSE group, comprising 63 patients who received HSE injections. Results: The two groups were comparable with regard to age, sex, bleeding focus and bleeding stigma. Permanent hemostasis using only endoscopic treatment was achieved in 59 cases (92.2%) in the FG group and in 54 cases (85.7%) in the HSE group. Rebleeding occurred in seven cases (10.9%) in the FG group and in 14 cases (22.2%) in the HSE group (P = 0.087); emergency surgery was undertaken in four (6.3%) and seven cases (11.1%), respectively (P = 0.33); death occurred in one case (1.6%) and four cases (6.3%), respectively (P = 0.165). Conclusions: These results suggest that endoscopic injection of FG is an effective method in the control of peptic ulcer bleeding. However, even though there is a strong trend supporting the

hypothesis that fibrin glue is superior to HSE, no statistically significant differences are noted. A trial involving larger numbers may produce a positive result.