

# A scheduled second endoscopy 16 to 24 hours after initial endoscopic hemostasis reduced recurrent peptic ulcer bleeding

Chiu PW, Lam CY, Lee SW, et al. Effect of scheduled second therapeutic endoscopy on peptic ulcer rebleeding: a prospective randomised trial. *Gut*. 2003;52:1403-7.

## QUESTION

In patients with bleeding peptic ulcer, is a scheduled second endoscopy 16 to 24 hours after initial endoscopic hemostasis more effective than close observation without a second endoscopy for reducing recurrent bleeding?

## DESIGN

Randomized (allocation concealed\*), {unblinded}†, \* controlled trial with follow-up at 1, 7, and 30 days.

## SETTING

United Christian Hospital, Hong Kong, China.

## PATIENTS

194 patients who were 15 to 90 years of age (mean age 68 y, 68% men) and had an endoscopically confirmed bleeding peptic ulcer with stigmata of acute bleeding, visible vessel, or adherent clot; and successful endoscopic hemostasis within 24 hours. Exclusion criteria included uncontrolled bleeding at initial endoscopy and bleeding from carcinoma of the stomach or other nonulcer lesions. All patients were included in the analysis.

## INTERVENTION

After successful endoscopic hemostasis, patients were allocated to a scheduled second endoscopy 16 to 24 hours after initial endoscopy ( $n = 100$ ) or to a control group

(close observation without second endoscopy) ( $n = 94$ ). All patients received intravenous (IV) omeprazole, 40 mg every 12 hours after the initial endoscopy for 3 days.

## MAIN OUTCOME MEASURES

Recurrent bleeding from the peptic ulcer (fresh hematemesis or fresh blood passing from the nasogastric tube, passage of fresh melena with a systolic blood pressure < 100 mm Hg or pulse rate > 100 beats/min, drop in hemoglobin level > 4 g/dL within 24 h, or requirement of continuous blood transfusion > 4 units within 24 h to maintain blood pressure or hemoglobin level). Secondary outcomes included number of surgeries required.

## MAIN RESULTS

Analysis was by intention to treat. At 7 and 30 days after initial endoscopic hemostasis,

fewer patients developed recurrent bleeding in the scheduled second endoscopy group than in the control group (Table). Surgery was required to stop recurrent bleeding in fewer patients in the second endoscopy group than in the control group (Table).

## CONCLUSION

In patients with bleeding peptic ulcer, a scheduled second endoscopy 16 to 24 hours after initial endoscopic hemostasis reduced recurrent bleeding and the number of surgeries required to control recurrent bleeding.

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\*See Glossary.

†Information provided by author.

## Scheduled second endoscopy vs close observation without second endoscopy (control) for recurrent peptic ulcer bleeding‡

Outcomes	Scheduled second endoscopy	Control	RRR (95% CI)	NNT (CI)
Recurrent bleeding at 7 d	4%	14%	71% (19 to 90)	11 (6 to 50)
Recurrent bleeding at 30 d	5%	14%	64% (7 to 86)	12 (6 to 146)
Need for surgery	1%	6%	84% (3 to 97)	19 (9 to 654)

‡Abbreviations defined in Glossary; RRR, NNT, and CI calculated from data in article.

## COMMENTARY

Is a scheduled “second-look” endoscopy beneficial for patients who had received endoscopic hemostatic therapy for peptic ulcer bleeding? Such patients constitute a minority of those admitted to hospital in North America with ulcer bleeding. In a recent multicenter U.S. study, most patients had a clean ulcer base or a flat pigmented spot (1). Such patients are at low risk for adverse outcomes and do not require endoscopic therapy. Therefore, only a few patients with ulcer bleeding might benefit from a planned “second-look” endoscopy.

Although Chiu and colleagues showed a substantial reduction in re-bleeding rates in their active treatment group, the absolute re-bleeding rates were quite low in both groups. Confining the “second-look” to patients for whom there is a clinical concern (based on findings at the index endoscopy and the perceived effectiveness of endoscopic control of bleeding on that occasion) may be better than a planned “second look” for all patients—but this has not been tested in a randomized controlled trial.

It is important to note that the patients in this study received an IV proton-pump inhibitor after endoscopic therapy. A study from a differ-

ent center in Hong Kong (2) showed that high-dose IV omeprazole substantially reduced the rate of re-bleeding. The preliminary results of a Cochrane systematic review and meta-analysis of PPI therapy in ulcer bleeding also suggest substantial reductions in re-bleeding and the need for surgery (3).

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## References

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