

Intermittent versus continuous IV pantoprazole for prevention of bleeding after endoscopic therapy

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Background: Current guidelines recommend an intravenous bolus dose of a proton pump inhibitor (PPI) followed by continuous PPI infusion after endoscopic therapy in patients with high-risk bleeding peptic ulcers. **Objective:** The aim of this study was to compare the effect of intermittent (40 mg as a bolus injection daily for 72hours) versus continuous (40 mg as a bolus injection followed by continuous infusion at 8mg/hr for 72hours) daily for 72hours IV pantoprazole for prevention of bleeding after endoscopic therapy of bleeding peptic ulcers. **Methods:** This single center cross-sectional study was conducted from January 2010 through December 2013. Patients who presented with overt or suspected upper gastrointestinal bleeding based on hematemesis or melena were eligible. These patients were required to have a peptic ulcer with bleeding on emergency endoscopy performed within 24 hours after hospitalization. Exclusion criteria were refusal of endoscopy, GI malignancy, M-W syndrome, variceal bleeding, bleeding d/t endoscopic procedure, small bowel bleeding, serious medical disease, etc. **Results:** A total of 342 patients met the initial eligibility criteria. 76 patients were excluded because their medical records contained exclusion criteria. The remaining 266 patients were eligible. The rebleeding rates within 7 days were 7.8% (11 of 141 patients) given intermittent IV pantoprazole and 5.6% (7 of 125 patients) given continuous IV pantoprazole ($p=0.476$). Among patients with Rockall scores ≥ 6 , the rebleeding rates within 7 days were 12.2% (6 of 49 patients) given intermittent IV pantoprazole and 11.8% (4 of 34 patients) given continuous IV pantoprazole ($p=0.999$). **Conclusions:** Intermittent intravenous pantoprazole is comparable to the continuous intravenous pantoprazole in patients with endoscopically treated bleeding peptic ulcers.

Clinical significance of heat shock protein 90 α expression in gastric cancer¹Department of Internal Medicine, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, South Korea,²Department of Pathology, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, South Korea*이동규¹, 공성민¹, 이정원¹, 이현수¹, 오지은¹, 조대현¹, 이현욱², 이은희², 김광민¹

Background and Aims: Heat shock protein 90 (HSP90), which possesses two major isoforms, α and β , plays essential roles in protection against stressful conditions and in the re-establishment of cellular homeostasis. We investigated the clinical significance of HSP90 α and HSP90 β expression in patients with gastric cancer (GC). **Methods:** HSP90 α and HSP90 β expression were examined immunohistochemically in surgical specimens obtained from 186 GC patients. The correlations between their expression status and clinicopathological parameters, along with patient survival, were analyzed. **Results:** The frequency of larger tumor size (maximum diameter ≥ 4 cm) and more prominent tumor invasion ($\geq pT3$) was 73.4% and 68.8% higher in the high intensity HSP90 α expression group than in the low intensity group, respectively ($p=0.001$ and $p=0.001$, respectively). High HSP90 α expression was also significantly associated with lymphatic invasion, lymph node metastasis, and advanced stage (TNM stage $\geq III$) disease ($p=0.047$, $p=0.046$ and $p=0.004$, respectively). Patients with high HSP90 α expression demonstrated significantly worse survival than did those with low HSP90 α expression ($p=0.047$). In contrast, survival did not differ significantly according to the intensity of HSP90 β expression. **Conclusions:** Our results show that HSP90 α overexpression may be associated with disease progression and poorer survival in patients with GC. HSP90 α could constitute a feasible biomarker for the prognosis of GC.

