Comparing Mortality Rate in Non-variceal Upper Gastrointestinal Hemorrhage Patients Visiting Phramongkutklao Hospital between Weekend and Weekday

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Background: Upper gastrointestinal hemorrhage is the most common emergency gastrointestinal problem and needs urgent endoscopic intervention. Studies from western countries reported higher mortality rate among patients admitted during the weekend. However, there were few prospective studies.

Objective: To compare inhospital mortality rate of non-variceal upper gastrointestinal hemorrhage (UGIH) patients between weekends and weekdays.

Methods: A prospective cohort study was conducted in a university hospital. Non-variceal upper gastrointestinal hemorrhage patients who underwent esophagogastroduodenoscopy from September 2016 to 2017 were enrolled. Inhospital mortality rate, 30-day mortality rate, rebleeding, need for surgery, and length of stay were collected.

Results: In total, 412 patients were included. There were 304 patients in weekday group (74%). Weekday patients tended to have poorer predictive scoring system, defined as complete Rockall score more than 8 point, but not statistically significant (18.4% and 7.4%; adjusted odds ratio, 1.44; 95% confidence interval, 0.43 – 4.84). Also, weekday patients were more likely to perform early endoscopy (within 24 hours) than weekend patients, but not statistically significant (65.8% and 35.3%; adjusted OR, 2.08; 95% CI, 0.97 – 4.55). The inhospital mortality rate was not different between the weekday and the weekend groups (8.6% and 5.6%; P=0.318). The 30-day mortality rate, rebleeding, need for surgery, and length of stay were also not different.

Conclusion: Despite weekdays tends to perform early endoscopy than weekends, but no differences in outcomes between non-variceal UGIH patients visiting hospital during weekends and weekdays.

Keywords: Nonvariceal upper gastrointestinal hemorrhage, Mortality, Weekend