Editorial

Predicting mortality from upper gastrointestinal bleeding

Upper gastrointestinal bleeding (UGIB) is a common problem worldwide. Patients commonly present with hematemesis or melena, or both. Control of hemodynamic instability, accurate diagnosis, and treatment of specific disorder are essential to prevent mortality. Major causes of bleeding include acute hemorrhagic gastritis, bleeding peptic ulcer, esophagogastric varices, arteriovenous malformation, tumor, and Mallory–Weiss tears. A careful history, physical examination and routine laboratory tests can identify the severity of blood loss, localize potential sources of bleeding, and indicate the comorbidity and complications that suggest appropriate investigations and management. Appropriate management can reduce mortality and complications of UGIB.

Thongbai et al. [1] have conducted a multicenter study from 11 hospitals in Thailand and identify predictors of 30 day mortality among the elderly. These include a pulse rate of more than 100 beats per minute at first visit, red cells in nasogastric aspiration, existing coronary heart disease, and creatinine of >1.5 mg/dL. They suggest that care must be taken to monitor and manage these risk factors.

Commonly cited scoring systems to monitor risk of mortality in UGIB are the Rockall score [2, 3], Blatchford score [4, 5], and AIMS65 [7]. The Rockall score is based upon age, the presence of shock, comorbidity, diagnosis, and endoscopic stigmata of recent hemorrhage [2, 3]. The Rockall score needs endoscopic data to predict mortality. By contrast, the Blatchford score and its simplified version does not take endoscopic data into account, and can therefore be determined when the patient first presents. The Blatchford score is based on blood urea nitrogen, hemoglobin, systolic blood pressure, and pulse rate, all of which are readily available [4]. The AIMS65 score is based on five patient characteristics including serum albumin level, the international normalized ratio of prothrombin time (INR), mental status, systolic blood pressure, and age [6, 7]. These characteristics are obtained before endoscopy. Poor outcomes are associated with albumin >3.0 g/dL (30 g/L), INR >1.5, altered mental status (Glasgow coma scale score <14, disorientation, lethargy, stupor, or coma), systolic blood pressure of ≤90 mmHg, and age >65 years [6, 7].

All the existing scores including the predictors suggested by Thongbai et al. [1] need to be validated in appropriate populations to guide treatment, reduce the length of hospital stay and the cost associated with treatment, and the rate of admission.

Before we validate many of the existing scoring systems it is important to guide treatment based on a careful history, physical examination, results of laboratory tests (complete blood count, serum chemistries, liver function tests, coagulation studies), and ruling out myocardial infarction in older patients. General supportive measures such as timely adequate blood replacement to maintain hemoglobin ≥7 g/dL, treatment of shock, and treatment directed at specific cause such as proton pump inhibitors, control of variceal bleeding, and control of bleeding tendencies.

References

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