



Abstract

□ INVESTIGATION OF THE RELATIONSHIP BETWEEN SHOCK INDEX, SCORES IN PATIENTS WITH UPPER GASTROINTESTINAL BLEEDING

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Background: Upper gastrointestinal bleeding (UGIB) is a common and life-threatening emergency with a mortality rate of 2–8%. Although prognostic assessment often relies on the Glasgow-Blatchford Score (GBS) and Rockall Score (RS), their inclusion of multiple parameters limits use in acute settings. The shock index (SI), derived from heart rate and systolic blood pressure, provides a simple and rapid alternative. This study investigates the relationship between the SI and established risk scores (GBS and RS) in patients with UGIB.

Methods: This retrospective study included patients over 18 years of age who presented to the emergency department between January 1 and December 31, 2021. Of the 246 patients who underwent endoscopy, 106 were excluded due to variceal bleeding, pregnancy, incomplete or missing data, loss to follow-

up, referral, or trauma. Clinical and laboratory information, including endoscopic findings, laboratory results, treatment details, and clinical follow-up, were collected. GBS, RS, and SI were calculated for each patient to evaluate the effectiveness of the SI in UGIB by examining its relationship with the GBS and RS.

Result: We enrolled 140 patients (62.9% male, $n = 88$; 37.1% female, $n = 52$). The mean age was comparable between the low and high SI groups (57.08 ± 20.20 vs. 54.75 ± 18.67 years, $p = 0.482$). Female patients had a significantly higher mean age than males ($p < 0.001$). The high SI group demonstrated significantly higher GBS scores compared with the low SI group (9.26 ± 3.50 vs. 6.29 ± 3.47 , $p < 0.001$). The mean RS was significantly higher in the high SI group compared with the low SI group (4.42 ± 2.11 vs. 3.30 ± 2.20 , $p = 0.003$).

Conclusions: In our study, both GBS and RS were significantly higher in patients with elevated SI, indicating that the Shock Index closely reflects bleeding severity and hemodynamic instability. Given that SI can be calculated rapidly, at no cost, and without the need for laboratory data, it may provide an early estimate of bleeding severity and prognosis before more comprehensive scoring systems such as GBS or RS are determined in the emergency department.