PRONOSTIC FACTORS ASSOCIATED WITH UPPER GASTROINTESTINAL BLEEDING IN A FRENCH MULTICENTRE STUDY: THE SANGHRIA PROJECT

V Quentin (St Brieuc), AJ Rémy (Perpignan), G Macaigne (Marne La Vallée), R Leblanc-Boubchir (Valenciennes), JP Arpurt (Avignon), C Koudougou (La Roche S/Yon), L Tsakiris (Melun), D Grasset (Vannes), M Rompteaux (Poissy), D Cuen (St Malo), J Verlynde (Dunkerque), K Elriz (Corbeil), MP Ripault (Béziers), F Ehrhard (Lorient), M Baconnier (Annecy), S Herrmann (Orléans), RL Vitte (Poissy), N Talbodec (Tourcoing), YH Lam (Cholet), K Bideau (Quimper), L Costes (Créteil), F Skinazi (St Denis), I Touze (Lens), D. Heresbach (Pontivy), P Lahmek (Paris), S Nahon (Montfermeil), ANGH for the SANGHRIA Study Group.

Introduction and aim

During the past decade, potential risk and prognostic factors for upper gastrointestinal bleeding (UGIB) have been evolved in developed countries in particular with an increased use of direct oral anticoagulants in thromboembolic diseases and a better management of UGIB by gastroenterologists with the use of new effective endoscopic haemostatic devices. As few studies investigated prognostic factors associated with UGIB in this context, we conducted such a study to better understand the role of new determinants of UGIB on its outcomes.

Methods

From November 2017 to October 2018, we carried out a prospective study in 46 public hospitals. We enrolled patients with symptoms of UGIB and subsequently confirmed UGIB by endoscopy (those who were admitted to the emergency medicine departments (EDs) with UGIB symptoms and those who were hospitalised for other reasons than UGIB). They were followed up at least for six weeks. Patients' characteristics, endoscopic and follow-up data were collected and analysed. Univariable and multivariable analyses using logistic regression models were performed to identify predictors of rebleeding and those of in-hospital and six-week mortality.

Results

Of the 2498 enrolled patients, 74.6% were diagnosed with UGIB after admission to EDs and 25.4% during hospitalisation. Median age of patients was 68.5 years +/- 16.3, 67.1% were men and 20.9% had a cirrhosis. Median Charlson score was 2 (IQR: 1-4), median Blatchford score was 11 (IQR: 7-13), and median Rockall score was 5 (IQR: 3-6). Among included patients, 19% had an oral anticoagulant medication: 43.8% of them with direct oral anticoagulants. Endoscopy was performed within 24 hours in 84.2% of patients and with general anaesthesia in 31%. An endoscopic assistant was present in most cases (91.5%). Main causes of bleeding were: 1) peptic ulcers and gastroduodenal erosions (44.9%), 2) lesions related to portal hypertension (18.8%) and 3) oesophagitis (11.5%). Active bleeding was observed in 24.5% of patients, mainly associated with peptic ulcers and portal hypertensive lesions, and was endoscopically treated in 86.7% and 79.6% of the cases, respectively. During hospitalisation, 10.5% of patients experienced rebleeding and 8.6% of them died. In-hospital mortality rate was lower among patients from EDs than those who were hospitalised (5.8% vs 16.8%, $p<0.0001$). Predictors associated with rebleeding were in-hospital bleeding (OR=1.36; 95%CI: 1.03-1.79), Blatchford score>11 (OR=1.45; 95%CI: 1.08-1.94) and active bleeding (OR=1.94; 95%CI: 1.48-2.55). The six-week mortality rate was 12.0%. It was significantly lower in the EDs group than the in-hospital group (9.1% vs 22.2%; $p<0.0001$). Predictors associated with six week mortality were initial transfusion (OR=1.53; 95%CI: 1.04-2.27), Charlson score>4 (OR=1.80; 95%CI: 1.31-2.48), Rockall score>5 (OR=1.97; 95%CI: 1.39-2.80), in-hospital bleeding (OR=2.44; 95%CI: 1.75-3.40), and rebleeding (OR=2.59; 95%CI: 1.85-3.64).

Conclusion

This study showed an improved management of UGIB compared to previous studies. Despite this improvement, mortality rate remained high at six-week follow-up in particular for patients who experienced UGIB while they were hospitalised for other reasons than UGIB. This can be explained by the severity of underlying disease for which patients were initially hospitalised. Strong predictors of mortality were in-hospital bleeding and rebleeding without major role of the anticoagulation therapy. This study confirmed that previously known predictors were still valid in the recent advancement in the management of UGIB patients.