

P3843

## Ischemic-bleeding balance according to history of prior bleeding in patients with acute coronary syndrome during treatment with dual antiplatelet therapy

P. Dominguez Erquicia<sup>1</sup>, S. Raposeiras Roubin<sup>1</sup>, E. Abu-Assi<sup>1</sup>, F. D'ascenzo<sup>2</sup>, S. Manzano Fernandez<sup>3</sup>, J. Saucedo<sup>4</sup>, J.P. Simao Henriques<sup>5</sup>, A. Ariza Sole<sup>6</sup>, M. Cespon Fernandez<sup>1</sup>, I. Munoz Pousa<sup>1</sup>, B. Caneiro Queija<sup>1</sup>, R.J. Cobas Paz<sup>1</sup>, L.M. Dominguez Rodriguez<sup>1</sup>, A. Iniguez Romo<sup>1</sup>

<sup>1</sup>Hospital Universitario Alvaro Cunqueiro, Cardiology, Vigo, Spain; <sup>2</sup>University of Turin, Cardiology, Turin, Italy; <sup>3</sup>Hospital Clínico Univeristario Virgen de la Arrixaca, Cardiology, Murcia, Spain; <sup>4</sup>University of Chicago Medicine, Cardiology, Chicago, United States of America; <sup>5</sup>Academic Medical Center of Amsterdam, cardiology, Amsterdam, Netherlands (The); <sup>6</sup>University Hospital of Bellvitge, Cardiology, Barcelona, Spain  
On behalf of BleeMACS, CardioCHUVI/ARRIXACA and RENAMI investigators

**Introduction:** ESC guidelines recommend short-term dual antiplatelet therapy (DAPT) in patients with high bleeding risk. In this sense, patients with prior admissions by bleeding are considered of high-risk of bleeding. With our study, we aimed to show the ischemic-bleeding profile of patients with prior bleeding in comparison with those without prior bleeding during treatment with DAPT.

**Methods:** The data analyzed in this study were obtained from the fusion of 3 clinical registries of ACS patients: BleeMACS (2004–2013), CardioCHUVI/ARRITXACA (2010–2016) and RENAMI (2013–2016). All 3 registries include consecutive patients discharged after an ACS with DAPT and undergoing PCI. The merged data set contain 26,076 patients. A propensity-matched analysis was performed to match the baseline characteristics of patients with and without prior admission by bleeding. The impact of prior prior bleeding in the ischemic and bleeding risk was assessed by a competitive risk analysis, using a Fine and Gray regression model, with death being the competitive event. For ischemic risk we have considered a new acute myocardial infarction, whereas for bleeding risk we have considered major bleeding defined as bleeding requiring hospital admission. Follow-up time was censored by DAPT suspension/withdrawal.

**Results:** From the 26,076 ACS patients, 1,105 have PAD (4.2%). During a mean follow-up of 12.2±4.8 months, 964 patients died (3.7%), 640 had myocardial infarction (2.5%) and 685 had major bleeding (2.6%). After propensity-score matching, we obtained two matched groups of 1,101 patients. In comparison with patients without prior bleeding, those with prior bleeding had higher risk of major bleeding (sHR 2.03, 95% CI 1.33–3.11, p=0.001) with similar risk of myocardial infarction (sHR 0.98, 95% CI 0.61–1.59, p=0.945), in comparison with those without PAD. The cumulative incidence of myocardial infarction was 31 and 32 per 1,000 patients/year in patients with and without prior bleeding, respectively. The cumulative incidence of major bleeding was 63 and 29 per 1,000 patients/year in patients with and without prior bleeding, respectively. The difference between myocardial infarction rate and major bleeding rate was –32 and +3 per 1,000 patient-years in patients with and without prior bleeding (Figure).

**Conclusions:** Patients with ACS and prior history of bleeding have a significant increment of bleeding risk during treatment with DAPT. In these patients, short-term DAPT (6 months) should be recommended.

