

Balance of bleeding and ischemic adverse events among unselected patients undergoing percutaneous coronary intervention according to clinical presentation

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Introduction: The balance of efficacy (prevention of ischemic adverse events) and safety (bleeding) is a of pivotal importance to guide antithrombotic therapy among patients undergoing percutaneous coronary intervention (PCI). Differences in the risks of bleeding and ischemia according to clinical presentation (STEMI, NSTEMI and stable coronary artery disease (CAD) among unselected patients undergoing PCI is not well understood.

Method: Between March 2009 and December 2010, 3,334 patients with CAD underwent PCI and were prospectively followed for one year. All patients received a loading dose of 600mg Clopidogrel and were prescribed dual antiplatelet therapy for the duration of 1 year. STEMI patients were treated with prasugrel from September 2009 onwards (469/860). Bleeding was defined as any bleeding according to BARC/TIMI or GUSTO.

Results: A total of 860 (25.8%) presented with STEMI, 865 (25.9%) with NSTEMI-ACS and 1609 (48.3%) with stable CAD. The composite ischemic end point of cardiovascular death, non-fatal MI and non-fatal stroke was highest among STEMI patients (10.5%) compared with NSTEMI-ACS (6.9%) and stable CAD patients (5.4%, $p<0.001$). A landmark analysis revealed that differences in ischemic risk were entirely limited to the first 30 days (8.0%, 3.9%, 2.9%, $p<0.001$) after PCI with no significant differences observed during follow-up between 30 days and 1 year (30-360 days 2.9%, 3.2%, 2.9%, $p=0.78$, p interaction =0.003, [Figure 1A](#)). Bleeding events showed a trend towards a higher risk among STEMI patients compared with NSTEMI-ACS and stable CAD patients at one year (3.6%, 2.6%, 2.1%, $P=0.07$). Differences were most pronounced during the first 30 days (2.5%, 1.2%, 1.0%, $p=0.005$) and no longer present during follow-up between 30 days and 1 year (1.2%, 1.2%, 1.2%, $p=0.94$, p -interaction=0.08, [Figure 1B](#)).

Picture / graph:

Figure 1A. Ischemia related events (cardiac death, myocardial infarction or stroke) during 0-30 days and during 30-365 days.

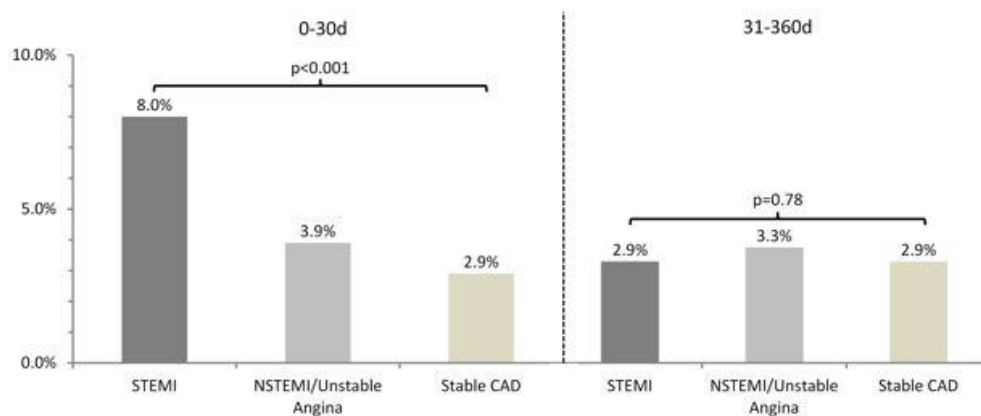
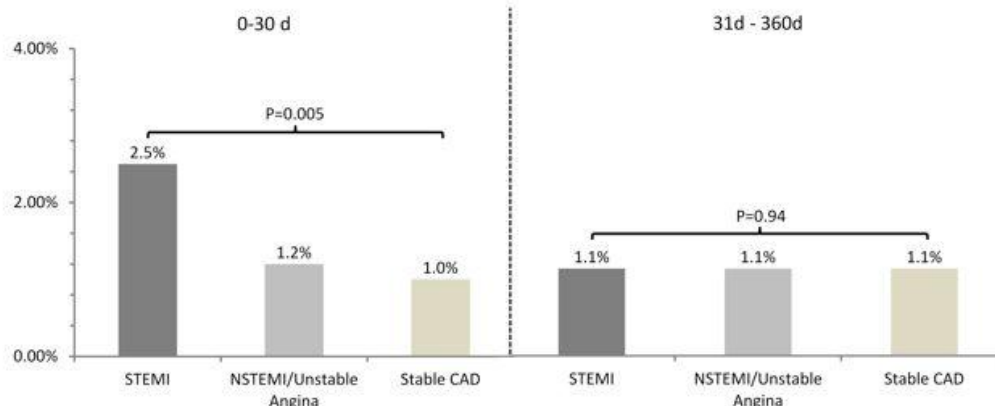


Figure 1B. Bleeding related events (TIMI/GUSTO/BARC 3-5) during 0-30 days and during 30-365 days.



Conclusion: In this unrestricted registry of consecutive PCI patients, STEMI patients have the highest risk for both bleeding and ischemic adverse events compared with NSTEMI-ACS and stable CAD patients at one year. However, differences in risk appear limited to the early peri-procedural period with subsequent attenuation during longer term follow-up.

Disclosure of Interest: None declared

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Impact of peptic ulcer disease on treatment and outcome in patients hospitalized for ST-elevation myocardial infarction. Insights from the nationwide AMIS plus registry from 2002-2013

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Introduction: Some studies showed that patients with peptic ulcer disease (PUD) have a higher risk of myocardial infarction compared with the general population. This study aimed to evaluate the impact of PUD on treatment and outcome in patients who were admitted for ST-elevation myocardial infarction (STEMI).

Method: Data were used from the Swiss national registry AMIS Plus (Acute Myocardial Infarction in Switzerland), which prospectively collects data on patients with acute coronary syndrome. All STEMI patients enrolled from 2002 to 2013 were included and patients with PUD were compared to those without. The main outcome measurements were in-hospital mortality and the composite endpoint of major cardiac and cerebrovascular events (MACCE) including reinfarction, stroke and/or death.

Results: From the 18,502 patients enrolled for STEMI, 17,775 patients (96.1%) were included and of these, 319 had PUD (1.8%). These patients were older ($72y \pm 12y$ vs. $65y \pm 13y$; $p < 0.001$), presented more frequently with atrial fibrillation (7.9% vs. 4.3%; $p = 0.005$) and with worse cardiac functions (Killip class > 2 11.6% vs. 7.2%; $p = 0.003$) than the patients without PUD. Proton pump inhibitors were regularly used by 57.6% of patients with PUD compared with 12.3% in patients without PUD ($p < 0.001$), but the difference in the regular use of oral anticoagulants was not significant (6.6% in patients with PUD versus 4.7% in patients without; $p = 0.13$). Patients with PUD were less likely to receive guideline recommended therapies, such as ASA (92.1% vs. 96.2%; $p = 0.001$), P2Y12 inhibitors (65.4% vs. 80.8%; $p < 0.001$), statins (67.5% vs. 76.0%; $p = 0.001$) and percutaneous coronary intervention (66.8% vs. 85.0%; $p < 0.001$). The complications rate in PUD patients was higher (30.1% vs. 20.6%; $p < 0.001$), but the rate of bleeding was similar (4.2% vs. 2.8%; $p = 0.20$) and from all the STEMI patients who suffered bleeding, only 2.3% of these were ulcer patients. Crude in-hospital mortality was 11.6% in patients with PUD and 6.1% ($p < 0.001$) in those without. MACCE was 12.1% in PUD patients vs. 7.6% in those without ($p = 0.004$). However, after adjustment for all differences, PUD was neither an independent predictor of in-hospital mortality (OR 1.23, 95%CI 0.81 to 1.86) nor of MACCE (OR 1.01, 95%CI 0.66 to 1.53).

Conclusion: A small part of the patients admitted for STEMI had PUD. These patients were older and sicker, however, after adjustment this comorbidity did not affect outcome.

Disclosure of Interest: None declared

P053

Predictors of patient-oriented and device-oriented outcomes among patients undergoing primary percutaneous coronary intervention

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Introduction: The aim of this study was to identify predictors of adverse events among patients with ST-elevation myocardial infarction (STEMI) undergoing contemporary primary percutaneous coronary intervention (PCI).