

Major Bleeding in Acute Coronary Syndrome Patients – A Decade Long Perspective

Avi Sabbag, Uri Amit, Paul Fefer, Ilan Goldenberg, Victor Guetta
Cardiology, Sheba Medical Center, Israel

Background:

The implementation of the early invasive approach and the increase in the use of potent anti-aggregates and anticoagulants in acute coronary syndromes (ACS) has resulted in higher rates of bleeding. There are limited data on the temporal trends in rates of major bleeding over the last decade and associated outcomes.

Methods:

We evaluated the rates, characteristics, risk factors and clinical outcomes of major bleeding events in 11,538 patients enrolled to the Acute Coronary Syndrome Israeli Survey (ACSIS) registry between 2000 and 2010.

Results:

A total of 143 (1.2%) patients experienced a major bleeding episode during index hospitalization for ACS. When comparing early (2000-2004) versus late (2006-2010) surveys, we observed a significant increase in major bleeding (0.9% and 1.6% respectively, OR 1.86, $p < 0.001$; Figure: red line), these trends corresponded with a recent rise in the use of primary PCI (p for trend < 0.001 ; Figure: blue line). In a multivariate analysis, primary PCI (OR 2.21, $p < 0.005$), renal failure (OR 4.19, $p < 0.001$) and systolic hypotension (OR 1.12, $p = 0.011$) were found to independent risk factors for major bleeding events. Major bleeding was associated with an increase in 1-year mortality compared with no bleeding (28% and 10%; adjusted OR 3.52, $p < 0.001$). However this was only true for non-accesses site bleeding. In contrast, patients who experienced major bleeding events related to the PCI access site experienced similar 1-year mortality rates as patients without bleeding events.

Conclusion:

Over the past decade the increase in use of primary PCI was associated with a corresponding increase bleeding events. However, this complication affected subsequent outcome only in patients who experienced bleeding events unrelated to the PCI access site.

