Major Bleeding in Acute coronary syndrome patients – a decade long perspective

Avi Sabbag MD, Uri Amit MD, Ilan Goldenberg MD, MA, Amit Segev MD, Victor Guetta MD Add other coauthors

No conflict of interest to disclose



Methods

- | Study population: ACSIS 2000-2010
 - A biannual national survey including all ICUs
 - 11,536 with patients ACS
 - Demographic, historic, and clinical data were recorded on prespecified forms

Definitions

- Early surveys: 2000-2004 Late surveys: 2006-2010
- Major bleeding
 - Decrease of > 5mag/dl in Hb
 - A decrease of >15% in Ht
 - Requirement for 2 units of pack cell's transfusion
 - Intracranial or retro-peritoneal bleeding



Baseline characteristics

Characteristics	Major bleeding n=143	No major bleeding N=11,358	p value
Age (mean)	70.6±12.4	63.7 ±13.1	0.001≥
Body mass index (kg/m²)	26.9±4.6	27.5±4.5	0.127
Women (%)	44.1%	23.2%	0.000
s/p Myocardial infarction	35.7%	29.4%	0.101
Chronic heart failure	10.6%	8.0%	0.255
Hypertension (%)	66.9%	56.4%	0.012
Dyslipidemia (%)	61.3%	61.4%	0.971
Current smokers (%)	22.1%	36.4%	0.001≥
Diabetes	42.0%	33.9%	0.044
Chronic renal failure	24.6%	10.3%	0.001≥
Chronic medication			
Anticoagulant	9%	3.4%	0.001
Aspirin	48.4%	47.3%	0.813
Clopidogrel	9%	7.4%	0.503

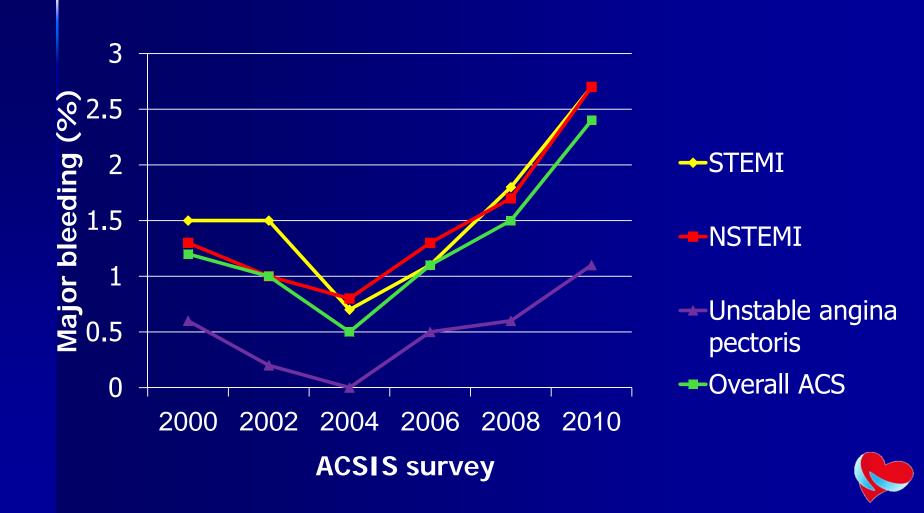


Predictors of major bleeding

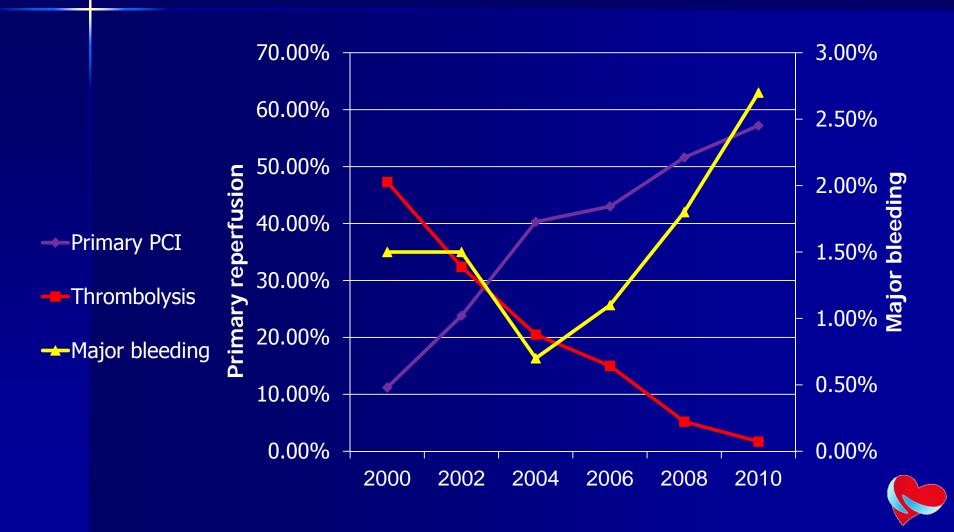
Variable	Adjusted OR	p value
Primary PCI	1.62	0.037
Female sex	2.32	< 0.001
Age	1.44	< 0.001
(per 10-year increase)		
Systolic blood pressure	1.10	0.002
(per 10 mmHg decrease)		
Killip class	1.23	0.048
Chronic renal failure	2.21	0.001≥
Glycoprotein IIb/IIIa	1.66	0.031
AICD/CRT	4.47	0.02



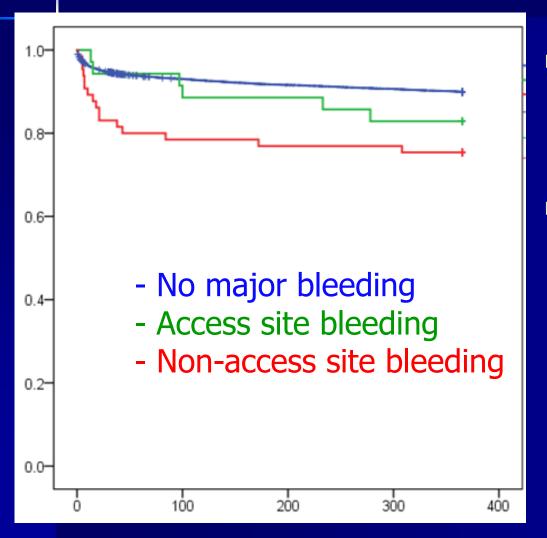
Frequency of major bleeding



Primary PCI, thrombolysis and major bleeding in STEMI patients



1 year mortality



- Access site bleeding
 vs. no major bleeding:
 HR= 1.7; p =0.18
- Non-access site bleeding vs. no major bleeding

HR=1.6; p <0.001



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

