

Unprotected left main PCI in acute coronary syndrome: the AMIS Plus experience

GB. Pedrazzini, D. Radovanovic, G. Vassalli, T. Moccetti, F. Eberli, P. Urban, S. Windecker, H. Rickli, P. Erne on behalf of the AMIS Plus Investigators

Background: Little is known about the outcome of unprotected left main stenosis (LM) associated with acute coronary syndrome (ACS). The goal of the present analysis was to assess incidence, clinical characteristic and outcome of the ACS-LM patients included in the Nationwide Acute Myocardial Infarction in Switzerland (AMIS Plus) registry during the period 2005-2009.

Methods: Patients with ACS included in the AMIS Plus registry during the period 2005-2009 were 14509, of whom 10544 (73%) underwent PCI. Among PCI pts, 557 (5%) underwent isolated or concomitant PCI of unprotected LM (55% and 45% of LM-PCI, respectively). Patient characteristics and outcome of ACS-LM were compared with 9987 ACS-non LM pts. (Table). LM pts. were older, more often of female gender, and more frequently presenting with hemodynamic instability and dyspnea compared with non-LM pts. Of note, the distribution of STEMI and NSTEMI was similar in LM and non-LM pts. In-hospital mortality and MACE rates were significantly higher in LM vs. no-LM pts., even though 1-year prognosis was similar. Half of ACS-LM pts. with cardiogenic shock (23/46) died in hospital. In-hospital mortality of LM pts. remained stable during the 4-year inclusion period, whereas it decreased from 6.3% in 2005 to 4.3% in 2009 in non-LM pts.

Conclusions : Unprotected LM disease in ACS pts. is associated with high in-hospital mortality, especially in pts. presenting with cardiogenic shock. For PCI survivors, however, 1-year outcomes are similar in LM and non-LM ACS pts. Thus, primary PCI improves long-term outcome of ACS patients with unprotected critical left main stenosis.

	Overall PCI* (N= 9987)	LM PCI (N = 557)	P value
Age	62.7	64.4	0.001
Female gender	2267/9987 (23%)	153/557 (28%)	0.01
Chest pain	8489/9741 (91%)	467/538 (89%)	Ns
Dyspnea	2125/9013 (23.6%)	179/505 (35.4%)	<0.001
Admission time	210 (110,580)	210 (95,630)	Ns
Door to balloon time	101 (39,374)	120 (45,550)	0.054
Resuscitation	486/9987 (4.9%)	44/557 (7.9%)	0.002
Killip Class III and IV**	444/9987 (3.4%)	57/553 (10.3%)	<0.001
STEMI	6111/9986 (61.2%)	344/557 (61.8%)	Ns
Cardiogenic shock at admission	326/9915 (3.3%)	21/551 (3.8%)*	Ns
In-Hospital death	282/9987 (2.8%)	44/557 (7.9%)	< 0.001
In-Hospital MACE	397/9917 (4.0%)	48/551 (8.7%)	<0.001
1-year death	54/2842 (1.9%)	5/183 (2.7%)	Ns
1-year MACE	136/2829 (4.8%)	11/182 (6.0%)	Ns