

Recurrent versus First, ST-Elevation versus Non-ST-Elevation Myocardial Infarction: Results from National Israeli Surveys ACSIS 2000-2010

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Background:

Patients sustaining a recurrent acute myocardial infarction (AMI) are at an increased risk for complications and death. Patients with ST elevation MI (STEMI) and NSTEMI differ in their management.

Objective:

We compared the outcome of recurrent to first AMI, STEMI to NSTEMI patients hospitalized in coronary care units in 2000-2010.

Methods:

We performed biennial 2-months nationwide AMI/ACS surveys, collecting data prospectively from all patients hospitalized in all CCUs in Israel

Results:

Our cohort comprises 7,507 patients: 3,908 STEMI (52%) and 3,599 NSTEMI (48%) patients. In-hospital complications occurred less frequently in first AMI patients.

	STEMI			NSTEMI		
	First n=3,107 (80%)	Recurrent n=801 (20%)	p	First n=2,305 (64%)	Recurrent n=1,294 (36%)	p
Age (yrs)	61	65	0.00001	65	69	0.00001
Women (%)	23	20	0.06	25	19	0.0001
Diabetes	26	39	0.00001	34	46	0.0001
Hypertension	50	60	0.00001	60	74	0.00001
Current Smoker	45	40	0.02	34	25	0.00001
Chronic renal failure	5	12	0.00001	11	26	0.00001
Coronary angiography	81	77	0.02	74	65	0.00001
Any PCI	85	82	0.09	68	63	0.005
Killip \geq 2	19	27	0.00001	15	28	0.00001
Hospital mortality	4.9	7.4	0.007	3.3	5.2	0.006
1-year mortality	8.7	16.2	0.00001	9.7	16.4	0.00001

Conclusions:

Patients with recurrent AMI are older and have more co-morbidity, and higher rate of hospital complications and mortality. NSTEMI in comparison with STEMI patients are older, have more co-morbidity, lower hospital mortality but similar 1-year mortality. It seems that these AMI cohorts aren't similar and may warrant a different therapeutic approach.