**Comparison of Outcome of Recurrent Versus First Non-ST-Elevation MI: Data from ACSIS 2000-2010**

*Shotan, Avraham[1]; Meisel, Simcha[1]; Frimerman, Aharon[1]; Blondheim, David[1]; Shochat, Michael[1]; Kazatsker, Mark[1]; Levi, Yaniv[1]; Matetzky, Shlomi[2]; Gottlieb, Shmuel[3]*
*[1]Hillel Yaffe Mediacl Center, Heart Institute, Hadera, Israel; [2]Sheba Medical Center, Heart Institute, Tel Hashomer, Israel; [3]Bikur Cholim Hospital, Cardiology Department, Jerusalem, Israel*

Patients who sustain a recurrent acute MI are at an increased risk for complications and death.
Objective: We compared the outcome of recurrent to first acute non-ST-elevation MI (NSTEMI) patients hospitalized in all CCUs during ACSIS 2000-2010.
Methods: We performed biennial prospective nationwide AMI/ACS surveys, collecting data prospectively from all patients hospitalized in all 26 CCUs in Israel
Results: Our cohort comprises of 3,596 NSTEMI patients. During the study period there was an increased usage of evidence based medications and interventions.

| Year | 2000 | 2002 | 2004 | 2006 | 2008 | 2010 | All | P trend | P Recurrent vs. First |
|---|---|---|---|---|---|---|---|---|---|
| Recurrent NSTEMI (N) | 110 | 188 | 224 | 273 | 231 | 266 | 1,292 | | |
| Age (yrs) | 68 | 69 | 70 | 69 | 70 | 68 | 69 | NS | 0.0001 |
| Coronary angiography (%) | 54 | 60 | 56 | 63 | 73 | 78 | 65 | 0.0001 | 0.0001 |
| Killip ≥2 (%) | 42 | 31 | 28 | 34 | 18 | 25 | 29 | 0.0002 | 0.0001 |
| Hospital mortality (%) | 8.2 | 5.9 | 7.6 | 4.4 | 3.5 | 4.5 | 5.3 | <0.05 | 0.004 |
| 1-year mortality (%) | 20.9 | 15.4 | 21.3 | 15.0 | 14.9 | N/A | 17.2 | NS | 0.0001 |
| First NSTEMI (N) | 186 | 364 | 434 | 466 | 434 | 420 | 2,304 | | |
| Age (yrs) | 65 | 65 | 65 | 65 | 63 | 64 | 65 | NS | - |
| Coronary angiography (%) | 58 | 62 | 65 | 79 | 83 | 86 | 74 | 0.0001 | - |
| Killip ≥2 (%) | 31 | 19 | 13 | 15 | 11 | 13 | 15 | 0.0001 | - |
| Hospital mortality (%) | 2.2 | 5.2 | 2.3 | 3.2 | 3.5 | 3.3 | 3.3 | NS | - |
| 1-year mortality (%) | 10.8 | 12.6 | 11.4 | 8.6 | 7.0 | N/A | 9.9 | 0.009 | - |

Conclusions: Despite the improved therapeutic approach of NSTEMI patients in recent years, patients admitted for recurrent NSTEMI share a worse 1-year outcome as compared to first NSTEMI counterparts. An improved therapeutic approach is needed for these high risk patients.