

## Clinical Characteristics, Treatment and Outcome of Patients After Out-of-Hospital Cardiac Arrest: Insights in Rambam Intensive Cardiac Care (RICCa) Registry

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**Introduction.** Despite recent advances in treatment of patients after out-of-hospital cardiac arrest (OHCA), mortality in this group remains high.

**Objectives.** To study etiology, clinical characteristics, treatment, and outcomes of patients admitted to ICCU after OHCA.

**Methods.** RICCa is an ongoing registry of all consecutive patients admitted to ICCU Rambam Health Care Campus.

Study period: 01.01.2000 – 31.05.2008.

Study outcomes: 1) in-hospital, 30-day, 6-months and 1-year survival rates;

2) rate of good neurological outcome at discharge.

**Results.** One hundred and forty five patients after OHCA were identified (2% of all admissions); 113(78%) - males; mean age – 65±12 years.

STEMI in 76(52%), NSTEMI - 37(25.5%), ischemic cardiomyopathy [CM] - 15(10%), non-ischemic dilated CM - 1(0.7%), hypertrophic CM - 1(0.7%), valvular disease - 14(9.7%) , long QT syndrome - 3(2%) and ARVD in 1(0.7%) were diagnosed. Some patients had multiple cardiac problems. In 23(16%) the cause of CA remained unclear.

CA occurred at home in 69(48%) patients, in 137(94%) CA was witnessed, but bystander CPR was initiated only in 46(32%). Mean CPR duration - 27±14 min.

Coronary risk factors: hypertension in 77(53%), smoking - 61(42%), dyslipidemia - 56(39%), DM - 42(29%), family Hx - 23(16%) patients. Some patients had multiple risk factors.

Medical Hx: prior angina in 43(30%), previous MI - 50(34%), PCI - 38(26%), CABG - 19(13%) patients. Different co-morbidities were found in 65(45%) patients.

On admission 126(87%) were unconscious and 41(28%) presented with shock. During hospital course renal failure was diagnosed in 73(50%) patients.

Rx: therapeutic hypothermia in 25(17%), primary PCI - 48(33%), thrombolytic therapy - 3(2%) and AICD - 23(16%).

**Outcomes:** in-hospital, 30-day, 6-months and 1-year survival rates were 50%, 48%, 44%, 39%, respectively; rate of good neurological outcome at discharge - 34%.

We were not able to identify any parameter which was associated with survival and/or good neurological outcome.

**Conclusions.** 1) Survival of patients admitted to ICCU after OHCA is relatively high.

2) In most patients cardiac arrest was triggered by acute coronary event, but in about one sixth the cause of CA was not identified. 3) Spectrum of coronary risk factors and cardio-vascular history was quite similar to general ICCU population.