

temperature of 9 h (6.35-12 h). Combined therapy with MTH and angioplasty was performed in 26.5% of cases. In multivariate analysis, only 5 parameters were significantly associated with a better outcome, absence of dyslipidemia (OR= 4.34[1.3-17.2]), age<70 years (OR =8.57[2.07-45.27]), no flow duration <10 min (16.57[2.6-143.7]), adrenalin dose <6 mg (OR=13.34 [3.54-64.08]) and shockable rhythm (OR=19.45 [4.43-114.52]). We used these parameters weighted according to their odds ratio to define a new score, called DAANS score (Dyslipidemia (1), Age>70 (2), Adrenalin dose>6 mg (3), No flow duration >10 min (4) and a non Shockable rhythm (5)) to assess the mortality risk during the initial management of patients victims of OHCA. Retrospectively in this study, a DAANS score >7 was predictor of a 100% mortality.

Conclusion: Pre-hospital classical criterias of poor prognosis after cardiac arrest could be integrated in a simple initial prognostic score (DAANS score) that could help guiding the optimal management (coronary angiography, MTH, prolonged resuscitation) for victims of OHCA.

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Percutaneous left ventricular assistance in post cardiac arrest shock: comparison of intra aortic blood pump and impella recover LP 2.5

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Objectives: To compare the feasibility, safety and outcome of IMPELLA Recover LP2.5 cardiac assistance and intra aortic balloon pump (IABP) in patients with post-cardiac arrest shock.

Background: Even after successful resuscitation, the in-hospital survival rate of post-cardiac arrest patients remains very low. Recently, a LV percutaneous mechanical assistance using the IMPELLA Recover LP2.5 has been proposed in order to improve the circulatory abnormalities and to allow further neurological evaluation.

Methods: Retrospective single center registry performed by the interventional cardiology and intensive care departments. All survivors of out-of-hospital cardiac arrest with patent post-resuscitation shock or predictive factors for the occurrence of shock assisted by either IMPELLA or intra aortic balloon pump (IABP) device immediately after the coronary angiogram were included.

Results: 78 post-cardiac arrest patients were assisted (35 by IMPELLA and 43 by IABP). Most of the patients had an acute coronary syndrome as cause of OHCA. Median “no flow” and median “low flow” were similar as hemodynamic parameters at admission. The feasibility (97%) of IMPELLA implantation was very satisfying. At 28 days, the survival rate without sequelae was 23.0% in the IMPELLA group and 29.5% in the IABP group (p=0.61). Post-cardiac arrest shock was the leading cause of death in the IMPELLA group (n= 21). Vascular complication was observed equally in both groups (3 vs 2, p=0.9). Serious bleeding complications requiring transfusion occurred in 26% of IMPELLA patients vs 9% of IABP patients (p=0.06) and bleeding requiring increase in vasopressor occurred in 9% of patients in both groups.

Conclusion: Emergent LV assistance by the IMPELLA LP 2.5 is feasible in patients with post-resuscitation shock. The rate of complication did not differ substantially in the two groups. These encouraging findings must be confirmed in a larger clinical study.

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Cardiac iatrogenic admissions in a coronary care unit A prospective study on 7550 admissions

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Introduction: Iatrogenic events were defined as adverse drug reactions or complications induced by non-drug interventions, such as cardiac devices or stimulation techniques. Iatrogenic complications (IC) are associated with prolonged hospitalization and higher in-hospital mortality. In the real world IC are mainly evaluated during hospital stay. The present study focused on admission in a coronary care unit (CCU) for an adverse effect and we aimed: a) to evaluate the prevalence and the characteristics of these admissions and the types of iatrogeny; b) and to assess the in-hospital mortality.

Methods: From April 2008 to May 2012, all the consecutive admissions caused IC at the CCU were prospectively studied and classified in 2 groups: 1) pharmacological adverse effect (antiarrhythmics, anticoagulant, and anti-platelets), 2) non pharmacological adverse effect (pace maker, Automatic Implantable Cardioverter Defibrillator, radiofrequency, stent, cardiac surgery).

Results: On 7550 admissions, 302 (4%) IC as admission cause were included in the study. Most patients with IC were male (58%) with a mean age at 71±15 years. The in-hospital mortality of IC group was similar to those in the general population (8% for both). The following table presents the results of the 2 groups (N (%) or mean±SD).

	N (%)	Men	Age (y)	Hospital death
Total	302	178(58%)	71±15	25(8%)
Non pharmacological adverse effect	161 (53%)	79(49%)	75±14	13(8.1%)
Pharmacological adverse effect	141 (47%)	99(70%)	67±17	12(8.5%)
p		p<0.001	p<0.001	p=0.891

Conclusion: This preliminary work shows the high frequency of iatrogenic events as a cause of CCU. Work will be necessary to better understand the causes of iatrogeny in order to limit this pathology.

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Diuretic is safe and superior to volume expansion in normotensive patients with acute pulmonary embolism and right ventricular dilatation

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Background: The rational and the benefit of load expansion is controversial in acute pulmonary embolism (PE). Diuretic may reduce RV preload and improve hemodynamic status. The present study reported the safety of furosemide in normotensive acute PE with oligo-anuria.

Methods and Results: We prospectively included 68 consecutive normotensive patients (systolic blood pressure ≥90 mmHg) admitted for acute PE with oligoanuria and RV dilation. RV dilation was defined by a right and left ventricular diameter ratio >0.6. Overall, 29 patients were treated by a repeated bolus of furosemide (83±84 mg, range 40 to 160 mg), while 39 patients received isotonic saline solution (1.6±0.8 L, range, 0.5 to 4.0 L). Patients treated by furosemide and fluid expansion had similar severity of hypoxemia but the furosemide group had lower admission blood pressure (119±21 mmHg vs. 132±18 mmHg, P=0.007) and greater shock index defined as heart rate and blood pressure ratio (0.81±0.23 vs. 0.69±0.18, P=0.02). Despite these differences, only the furosemide group had decrease shock index (0.81±0.23 vs. 0.62±0.17, P<0.0001) with improved systolic blood pressure (119±21 mmHg vs. 133 ±18 mmHg, P<0.001), heart rate (93±19 bpm vs. 81±18 bpm, P<0.001), and creatinin level. Finally, more patients were weaned in oxygen at 24 hours (39% vs. 19%) and in-hospital survival without death and PE-related shock was similar between the two groups (93% vs. 95%).

Conclusions: In normotensive PE with oligoanuria and RV dilatation, diuretic can be safely delivered to improve systolic blood pressure and oxygenation.