Mortality related to cardiogenic shock in critically ill patients in France, 1997-2012

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Introduction Most of data reporting epidemiology of cardiogenic shock (CS) concern patients with acute myocardial infarction admitted in intensive care unit of cardiology. However, CS patients managed in critical care unit (CCU) were never well described and seem to have different characteristics and outcome. To our best knowledge no study reported characteristics and clinical outcomes of CS patients admitted in CCU.

Aim To report key features, Mortality and Trends in mortality in a large cohort of patients with CS admitting in 33 French CCUs from 1997 to 2012.

Methods and results We queried the 1997–2012 database of Parisian area ICUs-the CubRea (Intensive Care Database User Group) database to identify all hospital stays with a principal or an associated diagnosis of CS (National classification of disease R 570). Among 303 314 hospital stays, 17 494 (5.8%) were CS. The patients were managed in 60% of cases in university centers. Mean age was 63.3±17.0. Men accounted for 11047 (63.1%). Mean SAPS II was 62.0±24.3. Among CS, only 535 (3.06%) were AMI whereas 2685 (15.3%) were cardiac arrest and 858 (4.9%) were drug intoxications. Mechanical ventilation was required in 12967 (74.1%) of cases, inotropes in 14640 (83.7%) of cases and renal support in 3886 (22.2%) of cases. Mean duration of hospital was 19.1 days±24.7. Intrahospital Mortality was high (46.2%). Predictors of intrahospital death are reported in Table. Over the 15-year period, mortality decreased (49.8% in 1997-2000 and 42.7% in 2009-2012, p<0.001) whereas the patients were more critically ill (SAPS II 58.8±25.4 in 1997-2000 vs 64.2 ±23.6 in 2009-2012, p<0.001).

Conclusion it is the first study reporting the prevalence, determinants and prognostic factors of CS patients managed in reanimation. The mortality of these very critically ill patients remains high. However over the 15-year period, even if these patients are more and more critically ill, early mortality decreased.

The author hereby declares no conflict of interest