

MEETING ABSTRACT

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The Sequential Organ Failure Assessment (SOFA) score: a useful prognostic instrument after cardiac surgery for the elderly patient

S Caroleo^{1*}, F Onorati², O Bruno¹, D Vuoto¹, F Infelise¹, A Rubino², E Santangelo³, A Renzulli², B Amantea¹

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Background

Organ dysfunction evaluation using Sequential Organ Failure Assessment score (SOFA score) has been shown to predict mortality and morbidity in adult cardiac surgical patients [1].

Materials and methods

Design: analysis of a prospectively collected database.

Setting: mixed Intensive Care Unit (ICU) in an University Hospital.

Patients: A total of 70 patients (ASA II-IV) aged >65 submitted to cardiac surgery. They were evaluated on 24, 48 and 72 hours after ICU admission. All post-operative ASA IV-E (E= emergency) and all ICU patients with different diagnosis were excluded from data collection.

Interventions: the collection of raw data necessary for the computation of a SOFA score on 24, 48 and 72 hours after admission and basic demographic and clinical statistics.

Data collection: We collected the parameters in order to calculate the Admission (AD), Daily, Mean, Total Maximum (TM) and Delta (Δ) SOFA score at the specific time points mentioned above.

Results

The Admission, TMS score and Δ SOFA presented a good correlation with mortality [area under the curve 0,9 (SE 0,060) and 0,809 (SE 0,136), respectively]. All the patients that receive more than 2000 ml of intraoperative fluids had an Admission SOFA Score between 16 and 20 ($p < 0.001$). All the patients with preoperative Left

Ventricular Ejection Fraction > 45% had an Admission SOFA Score between 2 and 10 ($p < 0.001$). All the patients mechanically ventilated for more than 5 days presented an Admission SOFA score between 17 and 20, while the same score was between 0 and 10 for those successfully extubated after 24 hours ($p < 0.001$). The mean cardiovascular, coagulation, hepatic, neurological and renal SOFA score were associated with the highest relative contribution to outcome [area under the curve 0,980 (SE 0,028), 0,951 (SE 0,057), 0,927 (SE 0,069), 0,991 (SE 0,019) and 0,944 (SE 0,061), respectively].

Conclusions

SOFA score is a useful prognostic instrument even in this specific clinical context.

Author details

¹Department of Anaesthesia and Reanimation, University of Catanzaro, Catanzaro, Italy. ²Department of Cardiac Surgery, University of Catanzaro, Catanzaro, Italy. ³Department of Anaesthesia and Oncological Intensive Care, Italy.

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¹Department of Anaesthesia and Reanimation, University of Catanzaro, Catanzaro, Italy