POSTER PRESENTATION

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Is contrast-associated acute kidney injury (CA-AKI) associated to the type of hospital and ICU? preliminay results of the nefrocon study

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Objetives

To evaluate the association of the type of hospital and of Intensive Care Unit (ICU) with the incidence of CA-AKI in critically ill patients in Spanish ICUs.

Materials and Methods

Prospective multicenter-study in 34 Spanish ICUs covering a 4-month period (from December 15th, 2012 to March 15th, 2013). Research endorsed by the Spanish Society of Intensive, Critical and Emergency Care Medicine (SEMI-CYUC). From 1035 initial cases, exclusion criteria of uncompleted demography data and renal depuration yielded a final total of 1012 patients.

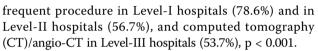
CA-AKI is defined as an absolute increase of 0.5mg/dl or 50% relative increase of serum creatinine 48-72 hours after contrast administration. Statistical analysis applying Chi-square tests with a significance level of 0.05 (software R3.1.2 for OsX). Results expressed as number(%).

Results

Of the 34 participating hospitals, 2.9% were of Level I, 58.8% of Level II and 38.2% of Level III. Polyvalent ICUs were 27(79.5%), medical ICUs were 5(14.7%), 1(2.9%) surgical ICU and 1(2.9%) trauma ICU. In 20(58%) hospitals, preventive strategies were not available. Such strategies were available in 10.7% of the hospitals of Level I, in 18.9% of Level II and in 41.9% of the centers of Level III (p < 0.001).

The availability of protocols was significantly higher in surgical and trauma (100%) ICUs than in polyvalent (26.8%) and medical (21.8%) units. There were also significant differences in the level of the hospitals and the performed explorations: coronary angiography was the most

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According to the type of ICU, CT/angio-CT was the most frequent procedure in surgical (83.9%) and trauma (100%) ICUs, coronary angiography in medical ICUs (64.1%) and similar percentages of both explorations were found in polyvalent ICUs (coronary angiography in 48.4% and CT in 44.3%), p < 0.001.

However, beside such differences, the incidence of CA-AKI was independent of these variables. The incidence was 7% in Level-I hospitals, 12.8% in Level-II hospitals and 11.6% in Level-III hospitals (p > 0.005); and in 11.5% of medical ICUs, in 19.4% of surgical ICUs, in 12.2% of polyvalent units and in 3.2% of trauma ICUs (p > 0.005).

Conclusions

Although hospital level and the type of ICU suppose significant differences in the performed procedures, these variables are not related to the incidence of CA-AKI. The availability of preventive protocols was not related either to the development of CA-AKI.

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