Category : **Infections + antimicrobials**

A114 - *Feasibility, usefulness and clinical results in the implementation of a capa active surveillance protocol.*

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Introduction:

Coronavirus disease associated pulmonary aspergillosis (CAPA), can be a devastating complication in patients on mechanical ventilation (MV) and ARDS. Recently, we had implemented an active screening and surveillance protocol, focused on the early detection of CAPA. Here we present our institutional results.

Methods:

We included all consecutive patients admitted to a polyvalent ICU, with SARS-CoV-2 pneumonia, from Mar 2020 to Jul 2021. The protocol was implemented in Aug 2020. Our surveillance protocol consists of lower respiratory track samples, obtaining by bronchial aspiration, processed with calcofluor staining, once a week. In case of positive results, respiratory or clinical worsening, we collect lower respiratory track samples by bronchoalveolar lavage (BAL). Probable CAPA definition is in accordance with ECMM/ISHAM consensus criteria [1].

Results:

During the study period, 345 patients were admitted in our ICU with SARS-CoV-2 pneumonia related ARDS. 90% required invasive MV. The mean age was 60 years, 69% were male, with severity scores mean values of SOFA 6.4, APACHE II 16.5, and SAPS II 39.5.
8.7% (n=30) of the patients met the diagnostic criteria of probable CAPA. 90% with GM index >1 in BAL. 70% with culture samples and GM assay from BAL were positive. This represents a global incidence of 8,7%. The ICU mortality in patients with probable CAPA was 23,3%. The ICU mortality of patients on MV without CAPA was 15.7% (P=0.3).

Conclusion:

CAPA is a severe complication and entails significant increase in morbi-mortality. We implemented an active surveillance system in our ICU. Early and timely detection, together with optimal organ support management could have influenced clinical outcomes, lowering the ICU mortality rate. In our sample, this mortality is not statistically significant despite being higher than in the non-CAPA group. It is possible that this difference was not greater, thanks to the proposed active surveillance protocol.

References:

1. Koehler P et al. Lancet Infect Dis 21(6):e149-e162, 2021.