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Clinical impact of early bronchoscopy in mechanically ventilated patients with aspiration pneumonia

S Park^{1*}, Y-J Cho², YJ Lee²

From ESICM LIVES 2015 Berlin, Germany. 3-7 October 2015

Background

A handful of studies have reported that the proper timing of bronchoscopy influences the clinical outcome in mechanically ventilated patients with aspiration pneumonia.

Methods

Mechanically ventilated patients with aspiration pneumonia who received bronchoscopy in a medical intensive care unit at tertiary hospital from March 2003 to December 2013 were retrospectively reviewed. By definition, patients who underwent bronchoscopy within 24 hours after intubation were categorized as the early bronchoscopy group. We compared demographics, clinical parameters, and outcomes, including mortality, between the two groups.

Results

182 patients were included. Compared to the late bronchoscopy group, the early bronchoscopy group (n = 93) showed no significant differences in demographic features, including acute physiology and chronic health evaluation II scores. The early bronchoscopy group showed significantly lower in-ICU mortality and 90-day mortality (in-ICU: 6.5% vs. 26.1%; 90-day: 10.8 vs. 33.0%) regardless of the appropriateness of the initial empirical antibiotics. In addition, their sequential organ failure assessment score on day 7 tended to decrease more rapidly. The early timing of bronchoscopy was associated with a lower 90-day mortality in multivariate analysis (odds ratio: 0.415; 95% confidence interval 0.183-0.942).

¹Sheikh Khalifa Specialty Hospital, RAK, United Arab Emirates Full list of author information is available at the end of the article

Conclusions

Early bronchoscopy could benefit the clinical outcomes of mechanically ventilated patients with aspiration pneumonia.

Authors' details

¹Sheikh Khalifa Specialty Hospital, RAK, United Arab Emirates. ²Seoul National University Bundang Hospital, Division of Pulmonary and Critical Care Medicine, Bundang, Korea, Republic of Korea.

Published: 1 October 2015

doi:10.1186/2197-425X-3-S1-A388 Cite this article as: Park *et al.*: Clinical impact of early bronchoscopy in mechanically ventilated patients with aspiration pneumonia. *Intensive Care Medicine Experimental* 2015 **3**(Suppl 1):A388.

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