

Category : **Respiratory: mechanical ventilation**

A64 - Risk factors associated with mortality during the first prone cycle in patients with ards secondary to sars-cov-2 pneumonia

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Introduction:

Our objective was to identify factors associated with mortality after the first 24 hours of prone position in patients on mechanical ventilation due to moderate and severe ARDS caused by SARS- CoV-2

Methods:

This was a retrospective cohort study. We included all patients with ARDS caused by SARS- CoV-2 pneumonia and required prone. We registered sex, age, APACHEII, SOFA, number of prone sessions-which lasted 24 hours-, hospital-acquired infections and hospital mortality. PaO₂/FiO₂, plateau pressure and driving pressure were recorded and compared before and after the first prone session.

Results:

126 patients were included. Mean age was 60±15 years, 25% were women. Apache II was 12±2.

Baseline PaO₂/FiO₂ 112±26 mmHg with no differences between survivors and non-survivors (p=0.92) and after prone it was 186±59 (p<0.000). Survivors had 220±48 mmHg versus 169±57 in non-survivors (p<0.000). One prone session was required by 67 patients, 2 sessions by 26 patients, 3 by 23 patients and 4 by 10 patients. Mortality was 55%, 69%, 75% and 100 % respectively; p <0.000).

117 patients increased PaO₂/FiO₂. In 21 patients (16%) it was less than 25%; 28 patients (22%) showed a rise between 25- 50%; and in 68 patients (54%) more than 50%. Mortality was 90%, 68% and 53% respectively (P=0.012)

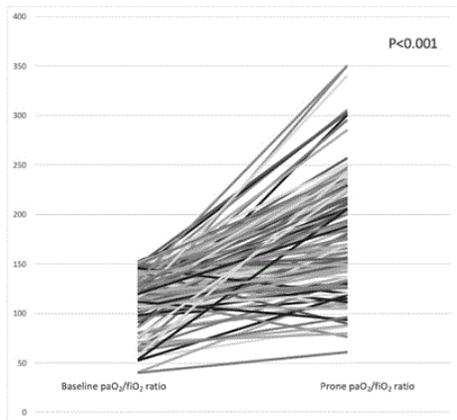
52 patients had suspected intra-hospital infection. 10 survived (20%) and 42 died (80%) (p<0.001).

After multivariate analysis, factors independently associated with mortality were % of increase in PaO₂/FiO₂ after 24 hours in prone (OR 0.99; CI 95% 0.98-0.99; p=0.01) the number of prone cycles (OR 1.84; CI 95% 1.08-3.12; p=0.02) and presence of in-hospital infection (OR 5.8; CI 95% 1.78-2; p=0.001)

Conclusion:

In this cohort of patients with ARDS secondary to SARS-CoV-2 pneumonia, the increase in PaO₂/FiO₂ ratio after 24 hours of prone position was independently associated with decreased mortality; while number of prone cycles, and presence of hospital-acquired infection were associated with increased mortality.

Image :



Before and after prone PaO₂/FiO₂