

Category : **Respiratory: mechanical ventilation**

A165 - The use of mechanical power and driving pressure during mechanical ventilation for ards in an icu in a lower income country(sri lanka)

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Introduction:

To determine the use of mechanical power [1]and driving pressure [2]during ventilation for ARDS in a lower income country. To assess whether these measurements affect outcomes in patients with ARDS being treated in a lower middle income country .

Methods:

Patients who fulfilled the Berlin criteria for ARDS [3] were recruited. The arterial blood gas immediately prior to ventilation, the 1st post ventilation blood gas, the ventilator settings on which the patient was stabilized on the first day were considered. The 1st post ventilation blood gas should have fulfilled the Berlin criteria as well to remain in the study. Patients with ejection fractions less than 30, and GCS of 3 prior to ventilation were excluded. Mechanical power and driving pressure were calculated from the first day's finalized ventilator settings. The ventilator settings, blood gas reports and chest X-rays were collected by an observer who was not privy to the measurements being made. The staff in the ICU were not aware of the measurements being taken.

Results:

There were 20 patients. Mortality was 60%

45% had Mechanical power of over 12. Mortality 88.9%

55% had Mechanical power less than 12. Mortality 45%.

50% had Driving pressure of over 14. Mortality 100%

50% had Driving pressure of less than 14. Mortality 20%

33% had Driving pressure over 14 and mechanical power over 12. Mortality 83%

20% had Driving pressure less than 14 and mechanical power less than 12. Mortality 0%

Documentation of values of mechanical power and driving pressure -0%

Conclusion:

The mortality for ARDS was high.

Due attention has not been paid to these parameters. Mortality was high when the values were high. Driving pressure correlates better with mortality rates than mechanical power. When both mechanical power and driving pressure were normal mortality was 0.

References:

1. S.Coppola et al. Critical care 2020;24;246
2. M.B.P.Amato et al. N Engl J of Med 2015;372:747-755
- 3.V.M Ranieri et al. JAMA 2012: 307(23)2526-2533