

Acute Respiratory Failure

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Program and abstract book

COMBINED APPLICATION OF LUNG RECRUITMENT MANEUVER (LRM) AND SURFACTANT ADMINISTRATION FOR THE TREATMENT OF ARDS

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Aim:

To improve efficiency of ARDS treatment via combined application of LRM and Surfactant-BL (ST-BL, Biosurf, Russia).

Methods:

26 pts developed ARDS (AECC criteria, 1994) and were on mechanical ventilation. Group I (14 pts) received LRM 4-6 times a day plus endobronchial segmental ST-BL administration at a dose of 6 mg/kg body weight every 12 hours. Group II (12 pts) received only LRM. LRM was performed by increasing V_t to 12-15-17 ml/kg body weight, increasing PEEP by 15-20-25 cm H₂O and Ppeak by 50-60-70 cm H₂O within 30-60 sec. In surfactant group LRM was performed immediately after surfactant administration.

Results:

After 24 h., 48 h. and 72 h. PaO_2/FiO_2 ratio grew from 127 ± 21.6 to 218 ± 19.1 ; 274.3 ± 12.1 and 293.5 ± 12.1 .

The same data for group II PaO_2/FiO_2 was from 152.4 ± 12.2 to 164.1 ± 12.4 ; 186.8 ± 13.2 and 234 ± 14.6 .

Respiratory support lasted 14.2 ± 1.1 days for group I and 16.1 ± 1.5 for group II. Mortality was 3 of 14 pts for group I and 5 of 12 pts for group II.

Conclusion:

Combined application of LRM and ST-BL administration proved to be beneficial in that LRM insures surfactant penetration to injured areas while surfactant prevents derecruitment.