

Clinical Characteristics and Outcomes Are Similar in ARDS Diagnosed by Oxygen Saturation/FIO₂ Ratio Compared With Pao₂/FIO₂ Ratio

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CHEST 2015; 148(6):1477-1483

e-Appendix 1.

A subgroup analysis of patients who did not have shock on the day of ARDS diagnosis

Among 362 patients enrolled in the study, 191 (52.8%) did not have shock on the day of ARDS diagnosis. Of 191 patients, 113 (60%) were diagnosed by PF ratio and 78 (40%) were diagnosed by SF ratio. Further analyzing the clinical characteristics and outcomes between the two subgroups, there were no significant differences in terms of underlying diseases, gender, hospital stays, ICU stays, in-hospital mortality. In this subgroup analysis, patients diagnosed by PF ratio (n=113) were more likely to be diagnosed with ARDS on the first day of ICU admission compared to those diagnosed by SF ratio (96% vs. 78%, p=0.001). The overall results of this subgroup analysis are very similar to the findings in the entire group.

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e-Table 1. A subgroup analysis of patients who did not have shock on the day of ARDS diagnosis – comparison of clinical characteristics between PF and SF

| | Diagnosed by PF ratio (n=113) | Diagnosed by SF ratio (n=78) | <i>p-value</i> |
|---|-------------------------------------|------------------------------------|----------------|
| Age (years) | 53 ± 16 | 52 ± 16 | 0.488 |
| APACHE II | 28 ± 8 | 24 ± 8 | <0.001 |
| Modified APACHE II without pH, PaO ₂ | 25 ± 7 | 24 ± 8 | 0.470 |
| Male | 53 (47%) | 45 (58%) | 0.185 |
| Caucasian | 98 (87%) | 64 (82%) | 0.579 |
| Current smoker | 38 (34%) | 24 (31%) | 0.754 |
| Diabetes | 38 (34%) | 23 (30%) | 0.636 |
| Alcohol | 15 (13%) | 16 (21%) | 0.231 |
| Chronic liver disease | 12 (11%) | 11 (14%) | 0.503 |
| Chronic kidney disease | 26 (23%) | 13 (17%) | 0.362 |
| On dialysis | 2 (1.8%) | 5 (6.4%) | 0.124 |
| ARDS risk factor | | | 0.300 |
| Sepsis | 26 (23%) | 27 (35%) | |
| Pneumonia | 47 (42%) | 22 (28%) | |
| Aspiration | 30 (27%) | 23 (30%) | |
| Other | 10 (8%) | 6 (7%) | |

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e-Table 2. A subgroup analysis of patients who did not have shock on the day of ARDS diagnosis – comparison of course and outcomes between PF and SF

| | Diagnosed by PF ratio (n=113) | Diagnosed By SF ratio (n=78) | <i>p-value</i> |
|--|--|---------------------------------------|----------------|
| Ventilation Mode on the Day of ARDS Diagnosis | | | 1.000 |
| Mech. Ventilator | 95 (84%) | 65 (83%) | |
| NIPPV | 18 (16%) | 13 (17%) | |
| Ventilation mode on the 4 th day of study | | | 1.000 |
| Mech. Ventilator | 99 (88%) | 68 (87%) | |
| NIPPV | 14 (12%) | 10 (13%) | |
| Number of Study Days with ARDS | | | <0.001 |
| 1-day | 4 (4%) | 11 (14%) | |
| 2-day | 10 (9%) | 13 (17%) | |
| 3-day | 13 (11%) | 19 (24%) | |
| 4-day | 86 (76%) | 35 (45%) | |
| Timing of Diagnosis of ARDS | | | 0.001 |
| First day | 109 (96.5%) | 61 (78.2%) | |
| Second day | 1 (0.9%) | 8 (10.3%) | |
| Third day | 1 (0.9%) | 5 (6.4%) | |
| Fourth day | 2 (1.8%) | 4 (5.1%) | |
| Length of ICU stay | 10 ± 8 | 9 ± 8 | 0.263 |
| Length of Ventilation | 8 ± 7 | 7 ± 8 | 0.251 |
| Ventilator free days | 13 ± 10 | 15 ± 10 | 0.160 |
| Length of hospital stay | 17 ± 13 | 17 ± 13 | 0.710 |
| Hospital Mortality | 35 (31%) | 25 (32%) | 0.875 |

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