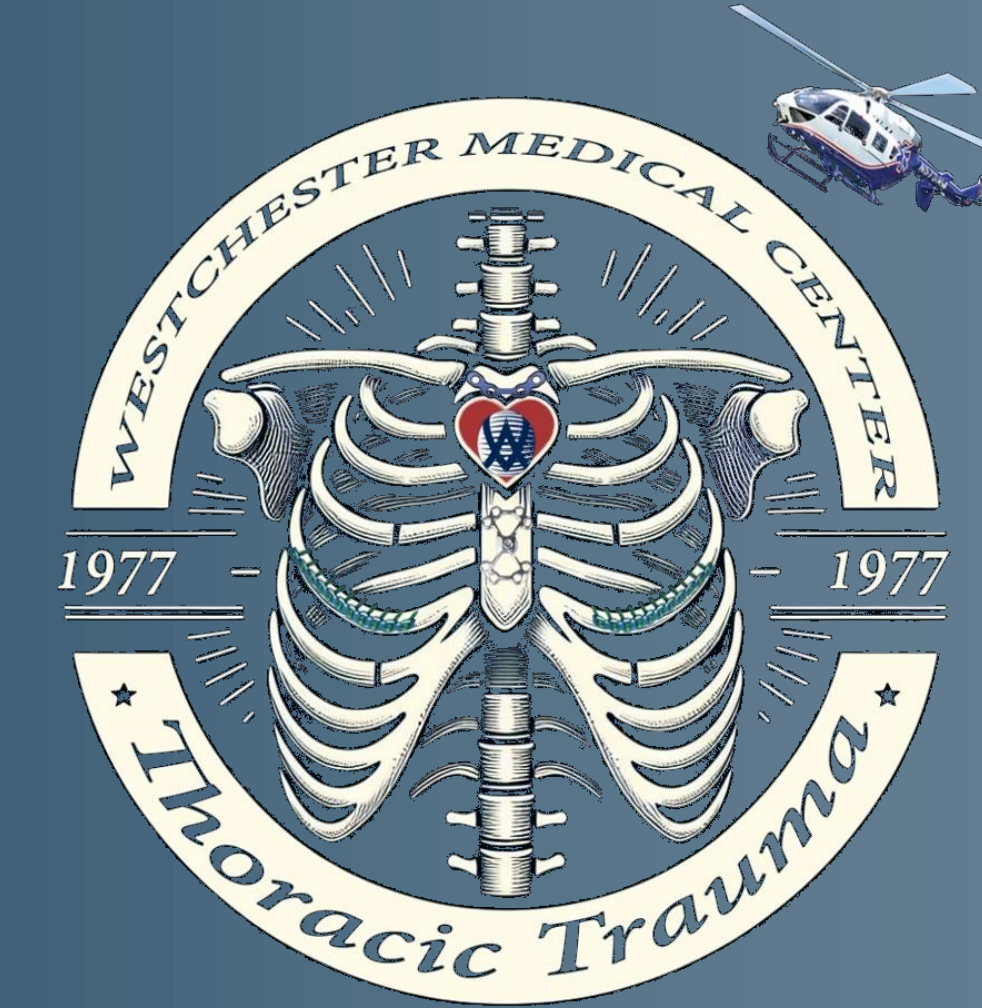


Not Damaged Beyond Repair: Early SSRF Improves Outcomes Among Polytrauma Patients with Rib Fractures



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INTRODUCTION:

Some have postulated that the benefits of surgical stabilization of rib fractures (SSRF) may be blunted in polytrauma patients as non-thoracic injuries may contribute to the higher rates of complications in this population.

OBJECTIVE:

To assess the differences in outcomes between polytrauma patients with multiple rib fractures who underwent early SSRF (≤ 72 hours) versus late SSRF (> 72 hours).

METHODS:

Study design: Retrospective cohort, TQIP 2017-2021

Inclusion: Adult polytrauma patients (≥ 18 y) with Abbreviated Injury Scale (AIS) score ≥ 3 in ≥ 2 body regions and ≥ 3 rib fractures: early SSRF (≤ 72 hours) and late SSRF (> 72 hours)

Outcomes: VTE, unplanned intubation, unplanned return to ICU (RICU), and ventilator-associated pneumonia (VAP), length of stay (LOS), and ventilator days

Statistical analysis: Propensity score matching

Covariates: Age, Glasgow coma scale, modified frailty index-5, flail chest, AIS head, AIS thorax, AIS abdomen, direct admission to OR/ICU, and intubation status.

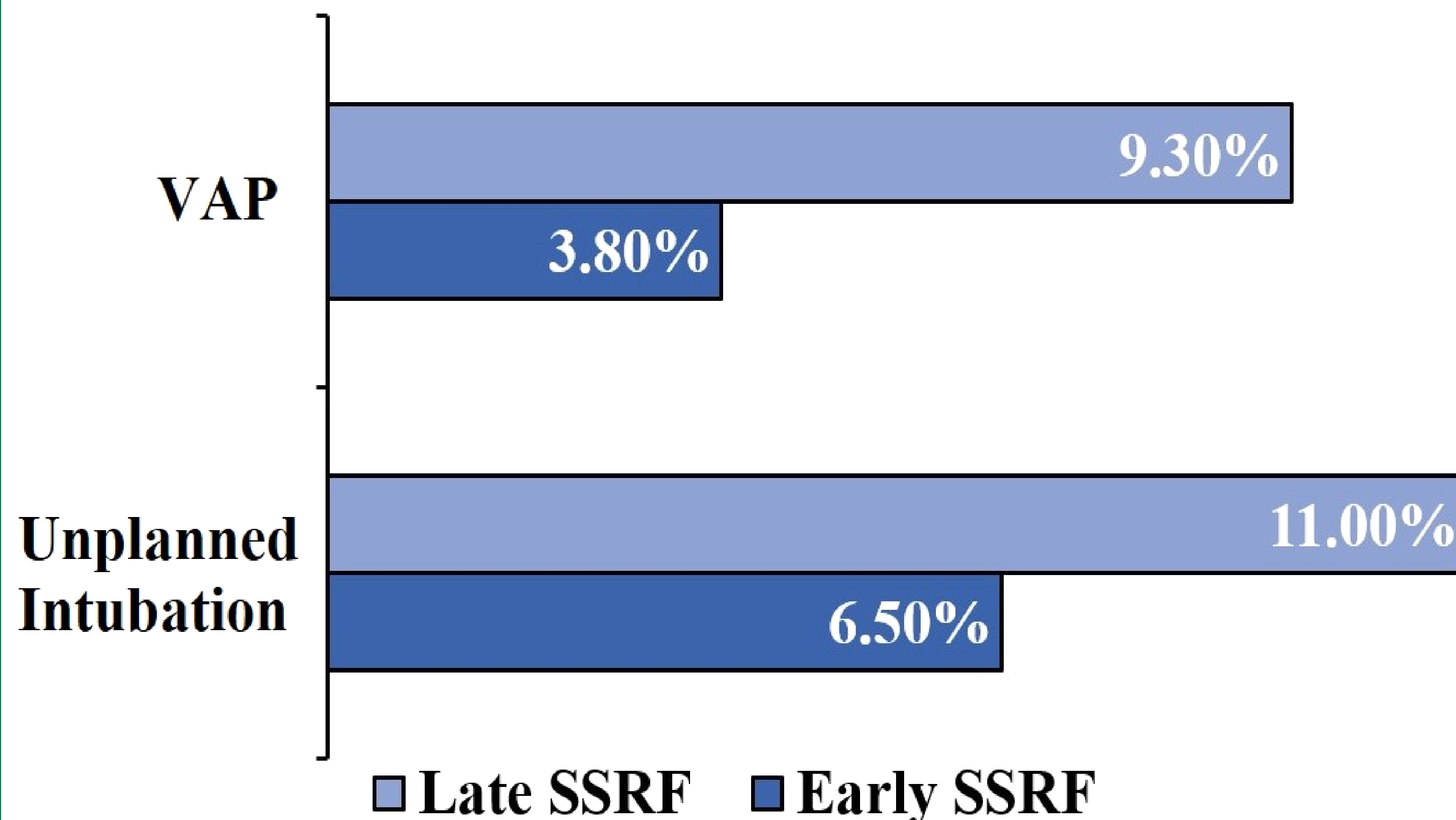
RESULTS:

Total: **1,744**

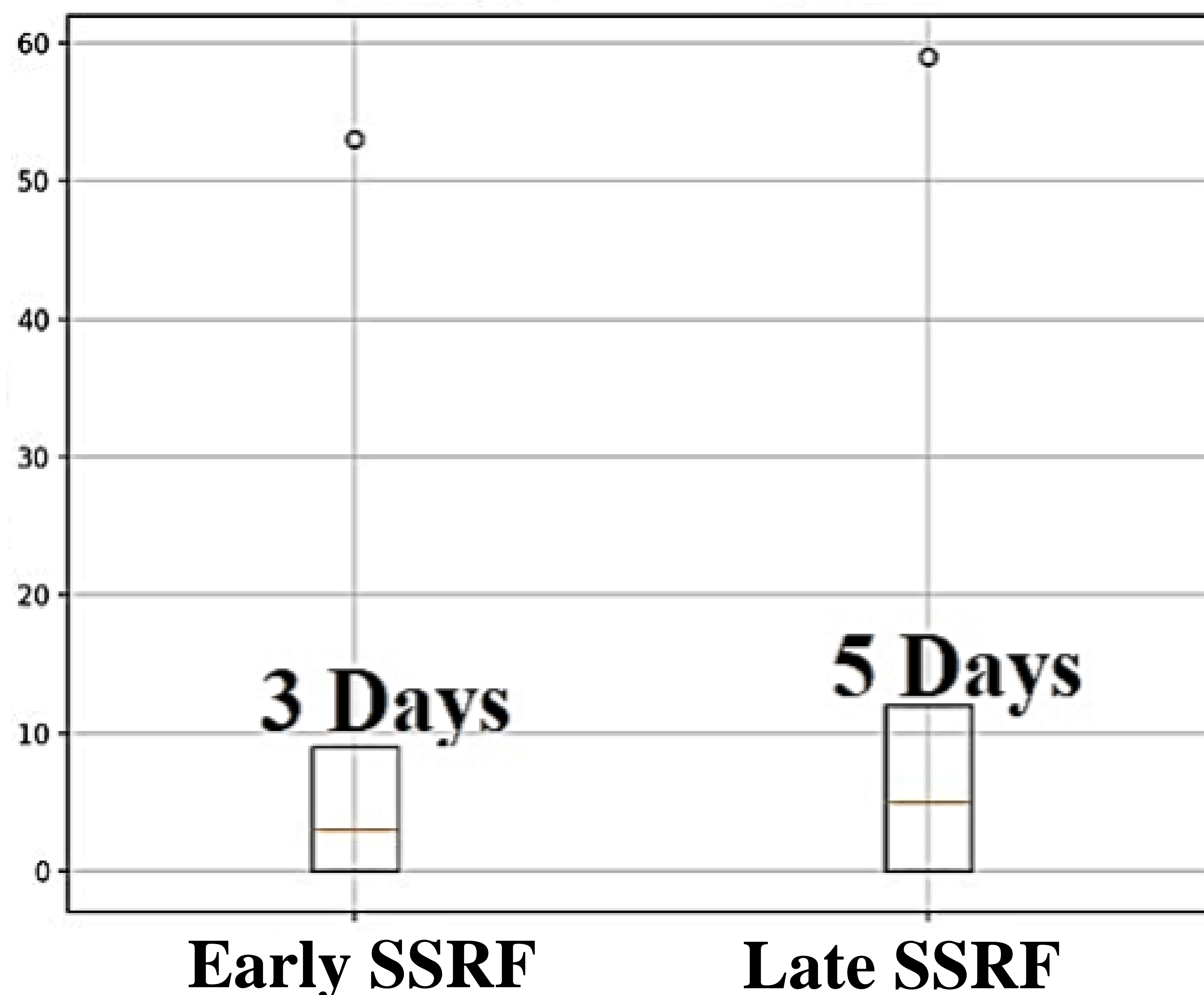
Prematch: **598** Early SSRF, **1,144** Late SSRF

Early SSRF patients were younger (median age **51 vs. 52 y**) with lower median Injury Severity Score (ISS) (**29 vs. 34**)

Postmatch: **581** Early SSRF, **581** Late SSRF



Ventilation Duration



No differences in VTE, RICU, hospital LOS, mortality ($p > 0.05$)

CONCLUSION:

Even in patients with other injuries, SSRF within 72 hours was associated with reduced rates of unplanned intubation, VAP, and shorter ICU LOS and ventilator days compared to late SSRF.

REFERENCES:

