

# Comment on: “Randomized Controlled Trial of Surgical Rib Fixation to Nonoperative Management in Severe Chest Wall Injury”

Yasuaki Tomioka\*

We recently read with great interest the article by Meyer et al,<sup>1</sup> “Randomized Controlled Trial of Surgical Rib Fixation versus Nonoperative Management in Severe Chest Wall Injury”. The study provides valuable insight into the efficacy of surgical stabilization of rib fractures (SSRF) in patients without clinical flail chest.<sup>1</sup> While the results highlight the prolonged hospital stay associated with SSRF, they do not demonstrate an improvement in patient quality of life or other clinical outcomes. This landmark work necessitates a reevaluation of existing protocols in the management of severe chest wall trauma and highlights the need for additional considerations on several fronts.

First, the study cohort included patients with radiographic flail segments, 5 or more consecutive rib fractures, or any rib fracture with bicortical displacement. While these criteria encompass a diverse spectrum of severe chest wall trauma, the lack of detailed subgroup analysis is striking. We ponder the pathological dissimilarity between a single displaced rib and 5 or more consecutive rib fractures, as highlighted in the authors’ discourse with the reviewers. Clarification of the results of a subgroup analysis based on rib fracture classification would greatly assist clinicians in understanding the nuances of these injuries.

Second, we question the study protocol that prohibited the use of local analgesia during surgery in the SSRF group. While its exclusive application to the SSRF group may have introduced bias, its omission may also have hindered postoperative rehabilitation, affecting both the length of hospital stay and quality

of life assessments. Given the intrinsic association of SSRF with pain management, the inclusion of this aspect seems essential to accurately identify the precise effects of the therapeutic intervention.

Finally, the research lacks an exploration of post-SSRF rehabilitation protocols and neglects to emphasize the long-term recovery trajectory after surgery. A thorough examination of the long-term outcomes of SSRF patients is critical to a full understanding of the surgery’s lasting impact on individuals’ health and quality of life.

In light of these points, we strongly recommend that future research carefully examine the differential effects of SSRF on different patient subgroups, the dynamics between pain management and SSRF, and long-term outcomes after surgery through extensive follow-up.

We trust that these considerations will help readers to fully grasp the implications of the findings of Meyer et al<sup>1</sup>.

## ACKNOWLEDGMENTS

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## REFERENCES

1. Meyer DE, Harvin JA, Vincent L, et al. Randomized controlled trial of surgical rib fixation to nonoperative management in severe chest wall injury. *Ann Surg*. 2023;278:357–365.

From the Division of Thoracic Surgery, Department of Surgery, Fukuyama City Hospital, Fukuyama, Hiroshima, Japan.

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Reprints: Yasuaki Tomioka, MD, PhD, Division of Thoracic Surgery, Department of Surgery, Fukuyama City Hospital, 5-23-1 Zao-cho, Fukuyama, Hiroshima, 721-8511, Japan. E-mail: yasuakitommy@gmail.com

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