

Surgical Indications for Stabilization of Rib Fractures: Toward a More Evidence-Based Selection

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Medical Image

Surgical Stabilization of Rib Fractures (SSRF) has emerged as an evidence-supported option in selected thoracic trauma patients. While conservative management remains standard for most cases, growing evidence support SSRF in well selected cases (**Figure 1**). In flail chest for example, systematic reviews and meta-analyses have shown that fixation can reduce duration of mechanical ventilation, pneumonia, Intensive Care Unit (ICU) and hospital length of stay compared with nonoperative management (**Figure 2**). Early SSRF, particularly within 48 to 72 hrs, has also been associated with improved short-term outcomes and reduce mortality¹.

Beyond flail chest, the indication remains less clearly defined. Patients with multiple displaced rib fractures, uncontrolled pain, chest wall deformity or respiratory deterioration may benefit from SSRF, but high-quality evidence in non-flail patterns is still limited. Standardized criteria and prospective multicentre studies are needed to better refine patient selection, timing but also type of surgical technique².

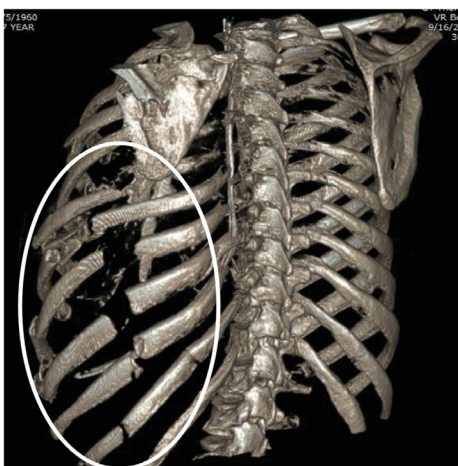


Figure 1: The 3D reconstruction of SSRF.



Figure 2: Rib Fixation.

2. References

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