The purpose of this study is to describe current practice patterns of pleural space management after chest wall reconstruction and evaluate associations between surgical stabilization of rib fracture (SSRF) techniques and clinical outcomes.

INTRODUCTION

- Rib fractures affect 350,000 people in the US each year. This can result in morbidity, prolonged pain and long-term disability.

- The surgical stabilization of rib fractures (SSRF) involves the surgical implantation of titanium plates across the fracture site to hold the ribs in the correct anatomical position while they heal.

- SSRF has been shown to be highly beneficial, demonstrating a shorter hospital stay, a shorter recovery and faster return to baseline activity.

- The total number of patients undergoing SSRF has increased by 76% since 2007.

- Practices surrounding adjunct procedures (i.e., tube thoracostomy, pleural space drainage, intra-operative lavage etc.) are varied across institutions and may contribute to differences in outcomes.

- This study has the potential to make a significant contribution to trauma care and inform what the best post-operative management is for SSRF patients.

METHODS

- This is a multi-institutional research study being conducted at Saint Francis Hospital and Medical Center along with 20 other sites.

- Any patient that has had SSRF surgery and meets inclusion criteria will be asked to enroll.

- Some patients will have pleural drains, VATS, or intra-operative pleural lavage, and some will not, depending on usual practice and surgeon preference at each institution.

- All patients will be managed according to standard of care at their institution and at the discretion of their attending surgeon and clinical care team. There are no study procedures.

- All participating sites will enroll patients, collect study data for inclusion into a REDCap clinical research database and provide follow-up with a survey of patients at 30- and 90-days post surgery.

- This study is in progress.

CONCLUSIONS

The findings of this study will yield information that may influence future patient management after rib fixation surgery, and lead to more standardized practice patterns.

ACKNOWLEDGEMENT

Illustrations by Jill Rhead, Medical Illustrator, Intermountain Medical Center.