Minimally Invasive Realignment for Slipping Rib Syndrome

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Introduction

- Slipping rib syndrome is secondary to an anatomic defect involving the costal cartilage of lower rib cage
- The anterior false rib slids underneath the rib above causing impingement of the branches of intercostal nerves manifesting as lower chest discomfort (Figure 1)
- Treatment for this disease can be conservative with pain control, but operative repair is the definitive treatment.

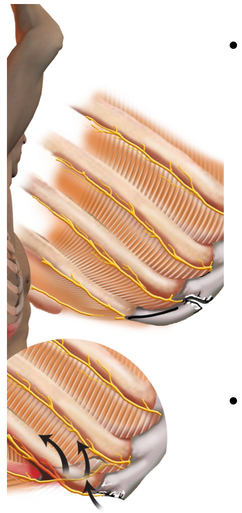


Figure 1: SRS

- Surgical approach involved resection of the cartilaginous portion of slipped rib. Minimally invasive realignment of slipped rib using sutures have been described which do not require cartilaginous excision.
- We present our experience with the minimally invasive realignment of the slipped rib.

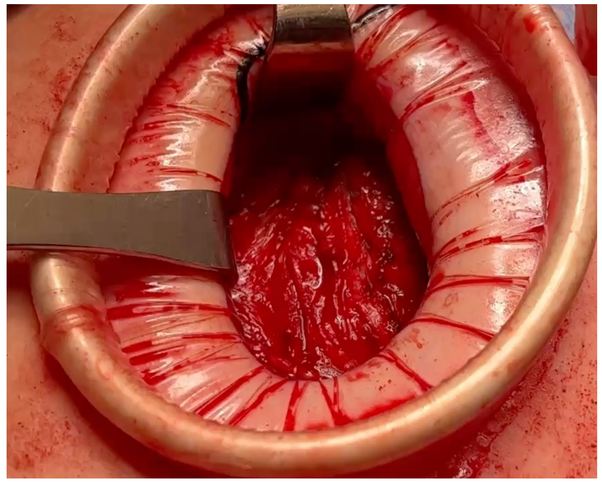
Method

- Retrospective review of patients (n=11) who underwent minimally invasive realignment between 01/20- 06/22.
- Self-reported pain scale (1-10) was used.
- Following data obtained: age, gender, imaging obtained prior to diagnosis, Preoperative pain (Self-reported scale) length of stay, postoperative complication, pain during post op visit (self-reported scale).

Results

- 54% of our patients were male, and the average age was 48 yrs.
- 36% (n=4) of our patients had received unremarkable imaging prior to diagnosis.
- 64% of our patients (n=7) reported pain to a nonexistent level at the first postoperative visit, while all of our patients reported decrease in pain levels.

Minimally Invasive Re-alignment



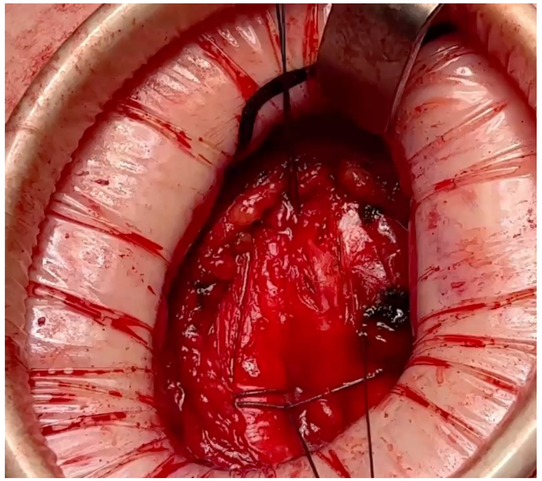


Figure 1: Exposure after incision and dissection. **Figure 2:** Technique: In our Technique, medially, we perform a chondroplasty by using #1 ethibond suture to place a U-stitch through the cartilages of the two ribs. 2. Laterally, we use a #1 ethibond to secure the ribs to each other in a figure-of-eight fashion

Discussion

- **With early hospital discharge, no perioperative complications, and resolution of symptoms, our experience suggest minimally invasive realignment of slipped rib is a well-tolerated procedure**.
- **Technique avoids excision of the cartilage, and realignment of the rib cage preserves the functional component of the chest wall.**