

Paralumbar Compartment Syndrome, a Rare Sequela of Deadlifting

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INTRODUCTION

- Compartment syndrome is a well-known phenomenon that is most commonly reported in the extremities.
- However, paralumbar compartment syndrome is rarely described in available literature. The authors present a case of paralumbar compartment syndrome after high intensity deadlifting.

METHODS

- The patient is a 53-year-old male who was diagnosed with paralumbar compartment syndrome one day after performing high intensity deadlifting and subsequently treated urgently with fasciotomies.
- The patient's medical records were thoroughly reviewed at the presenting institution.
- Below are Figures 1 + 2 demonstrating magnetic resonance (MR) imaging findings during this patient's admission to the hospital



Figure 1: T2 Weighted Sagittal MR Image demonstrating significant paravertebral edema



Figure 2: T1 Weighted axial MR Image demonstrating loss of muscular striations and vascular channels and homogenous appearance of paravertebral musculature

RESULTS

- The patient's paralumbar compartment syndrome was treated in two stages.
- The first stage included bilateral paramedian fasciotomies with debridement, tissue expander, and wound vac application.
- The second stage included additional debridement with wound closure.
- The patient followed up twice within four weeks after wound closure.
- Immediately post-operatively, the patient's pain improved significantly, and he was able to return to all activities of daily living.
- Despite a small seroma which was aspirated in the office per the patient's request, the patient's post-operative course was uncomplicated. To date, the patient has had no need to follow up.
- Below are Figures 3 and 4 demonstrating intra-operative photographs of the techniques used



Figure 3: Intra-operative photo demonstrating Jacob's Ladder hand tying technique to assist with wound approximation

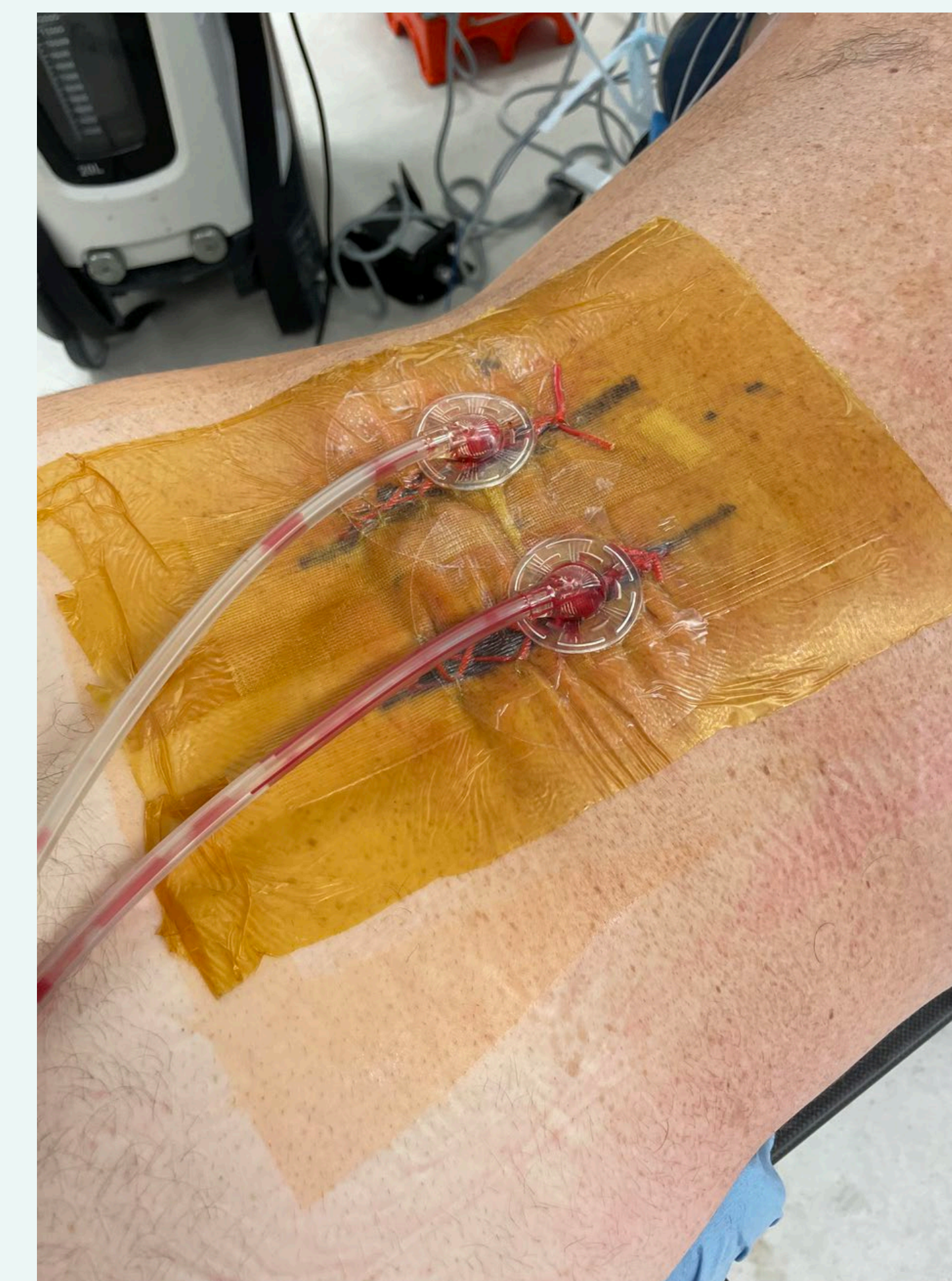


Figure 4: Intra-operative photo demonstrating wound vac and tissue expander application after the first fasciotomy stage

Discussion/Conclusion

- Given the paucity of literature on paralumbar compartment syndrome, the authors' goal is to promote awareness of the diagnosis, as it should be included in the differential diagnosis of intractable back pain.
- The current literature suggests that operative cases of paralumbar compartment syndromes have a higher rate of return to pre-operative function compared to those treated non-operatively. This case report further supports this notion.
- The authors recommend further study into this phenomenon, as it could be a missed diagnosis with detrimental outcomes for patients.

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