Radiofrequency Ablation for Thoracic Facet Joint Pain in the Setting of Cervical and Thoracic Spinal Fusion

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Introduction

- Thoracic facet joint pain is a cause of axial mid-back pain and commonly occurs due to degenerative processes.
- Spinal fusion further accelerates facet joint pain at adjacent levels in a a process known as adjacent level disease.
- When conservative management such as physical therapy and NSAIDs fail, radiofrequency ablation (RFA) can be an effective treatment for facetogenic pain.
- We present a patient with cervical and thoracic spinal fusion who was treated with RFA for thoracic facet joint pain.

Materials & Methods

- A 60-year-old female with a history of a motor vehicle accident status post C4–C7 fusion and thoracic meningioma resection status post T6–T9 fusion presented with chronic right-sided mid-back pain.
- The pain was sharp and aching, without radicular symptoms. It was located medial to the right scapular border and extended down to the inferior angle.
- Any movement of the thoracic spine worsened the pain. Physical therapy and tramadol did not significantly help the pain.
- There was tenderness along the right upper and middle trapezius and paraspinals, thoracic spine range of motion was limited by pain, and pain was reproduced with right thoracic facet loading.
- MRI of the cervical and thoracic spine: prior anterior discectomy and fusion at C4–C7, posterior fusion at T6–T9, and enhancement along the anterior spinal cord at T4–T5.
- The patient consented to be part of this case report.

Results / Imaging

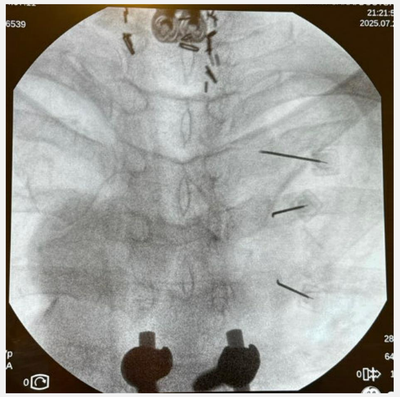


Figure 1. AP fluoroscopic view of T3–T5 RFA above the thoracic hardware.

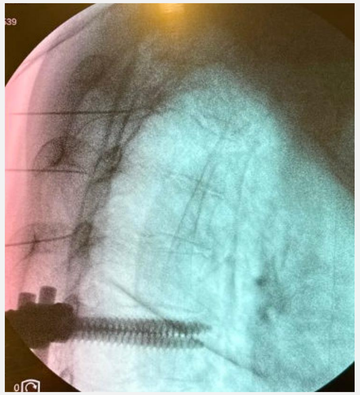


Figure 2. Lateral fluoroscopic view.

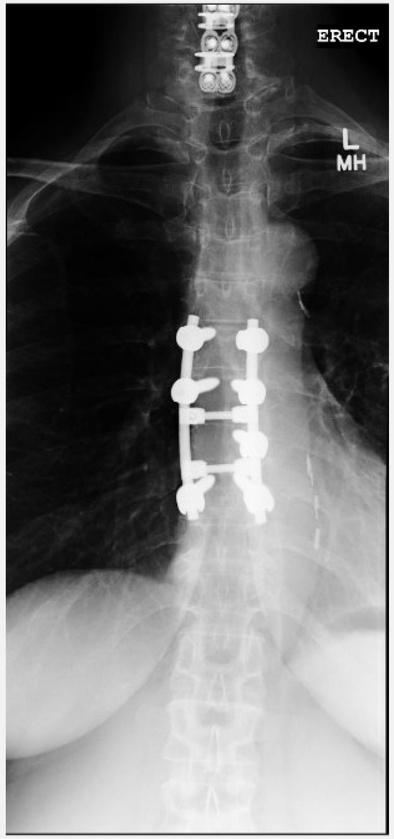


Figure 3. AP Thoracic x-ray demonstrating spinal fusion hardware.

Results

- Trigger point injections to thoracic paraspinals and trapezius muscles gave temporary relief.
- T3–T5 medial branch blocks successfully identified facet joint pain generators above thoracic hardware,
- T3-T5 RFA were performed after medial branch blocks.
- There were no complications reported after medial branch blocks or RFA.
- The patient reported 90% pain relief for six months

Discussion

- Spinal fusion can alter biomechanics at adjacent spine levels and increases shear forces resulting in facet joint mediated pain.
- RFA has been reported as a safe and effective treatment for facetogenic pain in patients with cervical and lumbar fusion.
- Reports of RFA in patients with thoracic fusion are limited.
- We present a patient with cervical and thoracic fusion who had significant relief of thoracic facet joint pain with RFA.

References

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