When Perineural Cysts Become Symptomatic: A Rare Case of Multiple Thoracic and Lumbar Cysts

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INTRODUCTION

Perineural cysts, also known as Tarlov cysts, are cerebrospinal fluid (CSF)-filled dilatations of the nerve root sheath located around the dorsal root ganglion. They commonly occur in the sacral region, with a reported prevalence of 4.6%, and are more frequent in women. Symptomatic cysts are uncommon, and the literature regarding their clinical significance and optimal treatment remains limited. We present a rare case of symptomatic multilevel thoracic and lumbar perineural cysts.

DISCUSSION

Symptomatic perineural cysts are uncommon and may cause pain through nerve root compression or irritation. This case report illustrates an intercostal nerve block providing significant temporary pain relief. Given the limited literature regarding treatment, longer-acting interventional approaches such as pulsed radiofrequency ablation or cryoablation may provide therapeutic benefit in cases refractory to conservative care.

CASE REPORT

61-year-old female with a remote history of rib fractures involving the right T8 and T9 levels presented with a one-year history of right-sided mid-back pain, 10/10 severity, without an inciting event. She described the pain as constant and achy, with a tight sensation extending along the mid-back and upper lumbar region, radiating to the lateral chest wall. The patient had previously undergone a trigger point injection, which provided transient relief of 2–3 days. She reported no clear aggravating or alleviating factors; however, physical activity exacerbated her symptoms, particularly deep inspiration. Her medications included baclofen 10 mg, nortriptyline 25 mg, and diclofenac 75 mg, which provided only mild symptomatic relief. Neurologic examination was unremarkable except for allodynia from the mid-back to right lateral chest wall corresponding approximately to the T8–T10 dermatomes.

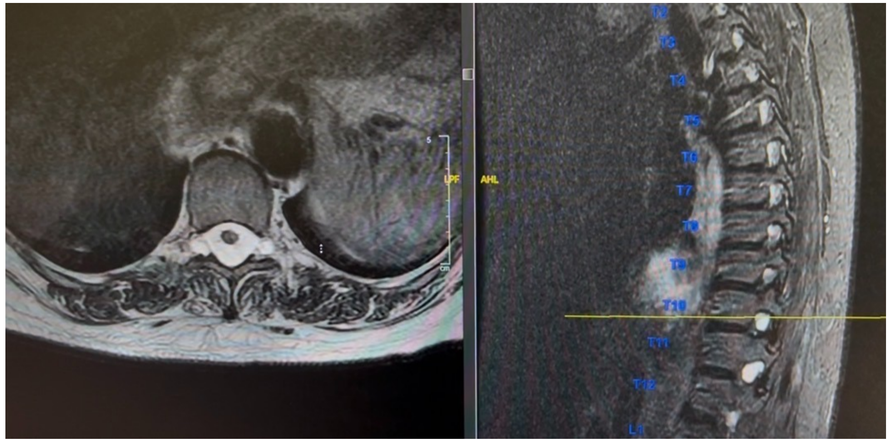


Figure 1. MRI demonstrating multiple thoracic and thoracolumbar perineural cysts.

Magnetic resonance imaging of the spine without contrast identified multiple well-circumscribed T2-hyperintense and T1-hypointense structures, considered most compatible with perineural cysts. Multiple cysts were identified at several thoracic and thoracolumbar levels, including bilateral T10–L1, right T3–T4 and left T1–T3, T8–T9, and T9–T10.

INTERVENTION & OUTCOME

A right T8–T9 diagnostic intercostal nerve block with bupivacaine and betamethasone was performed under fluoroscopic guidance.

KEY CLINICAL RESPONSE

80% pain relief

for the next 3 days



Figure 2. Fluoroscopic image during right T8–T9 intercostal nerve block.

CONCLUSION

Symptomatic perineural cysts are uncommon and may cause pain through nerve root compression or irritation. This case report illustrates an intercostal nerve block providing significant temporary pain relief. Given the limited literature regarding treatment, longer-acting interventional approaches such as pulsed radiofrequency ablation or cryoablation may provide therapeutic benefit in cases refractory to conservative care.