

Utility of Diagnostic Discography Prior to Surgical Intervention

Shrikanth Parthasarathy, DO, Harsh Sachdeva, MD

Cincinnati, OH, Department of Anesthesiology, Division of Pain Medicine

Introduction

- Discography has been a diagnostic modality for spine pain since the mid 1900s. In modern day, it is commonly used when concerned with potential discogenic pain.
- Controversy continues to exist regarding the use of this procedure alone or when assisting in localizing the origin of a patient's pain prior to surgery.
- Despite a plethora of literature for and against discography, we present two case reports of successful diagnostic discography prior to surgical intervention, in order to highlight the on-going utility of this procedure in select populations.

Methods and Materials

All patient information has been de-identified for this case report. Per University of Cincinnati Medical Center policy, single patient case reports are exempt from IRB review.

Case Report 1

• 31 yo F with pmhx of obesity, and chronic axial low back pain, who was referred by neurosurgery for a discography. Prior to referral, the patient had a trial of physical therapy, medical management, facet injection, and a transforaminal ESI L5-S1, without significant improvement. MRI indicated advanced degenerative changes at L5-S1 with Type 1 Modic changes and inferior endplate collapse at L5, along with L5-S1 diffuse disc bulge resulting in bilateral subarticular and foraminal stenosis

• Underwent L5-S1 discogram, with 2 mL of omnipaque dye and 2 mL of 2% preservative free lidocaine, which obtained >80% pain relief and >50% activities of daily living (ADL) improvement for 1.5 weeks.

• Subsequently, went on to have L5-S1 ALIF. At her follow-up visit with neurosurgery 3 months post-operatively, continued to have >75% pain relief and functionality, while continuing to be off opioid analgesics.

Case Report 2

30 yo F with pmhx of chronic lumbar back pain associated with intermittent radiculopathy and bilateral gluteal pain, who was referred by neurosurgery for discography. Prior to referral, the patient had a trial of home exercise program and bilateral SI joint injections with minimal relief. MRI indicated L4-L5 paracentral disc herniation with asymmetry of L4-L5 disc, with right sided narrowing.

Underwent L4-L5 discogram, with 2 mL of omnipaque dye and 2 mL of 2% preservative free lidocaine, which obtained >80% pain relief and >50% ADL improvement for 2 weeks.

- Subsequently, went on to have L4-L5 ALIF. At her follow-up visit with neurosurgery 3 months post-operatively, continued to have >50% pain relief and functionality, while continuing to be off opioid analgesics.

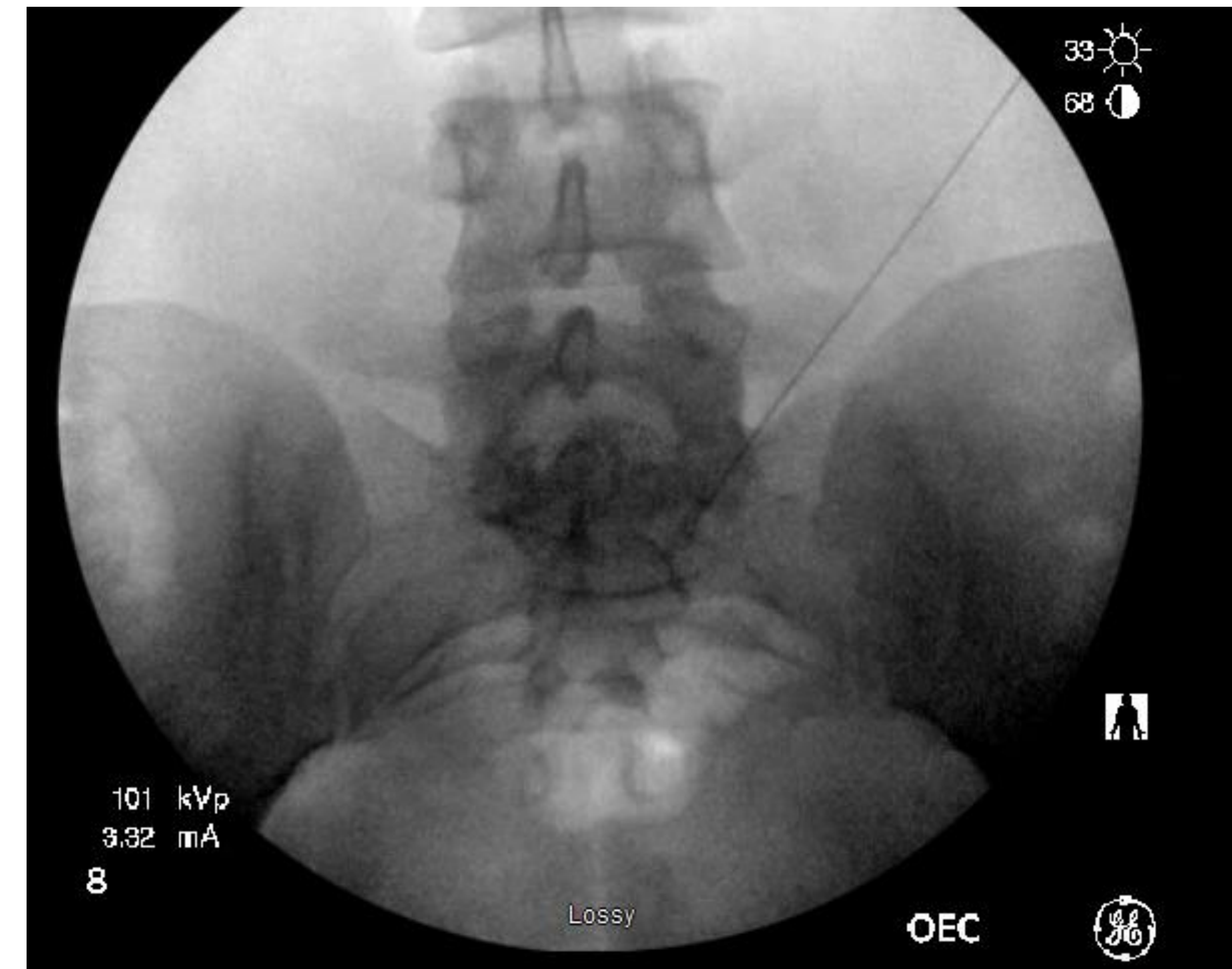


Image 1: L5-S1 Discogram

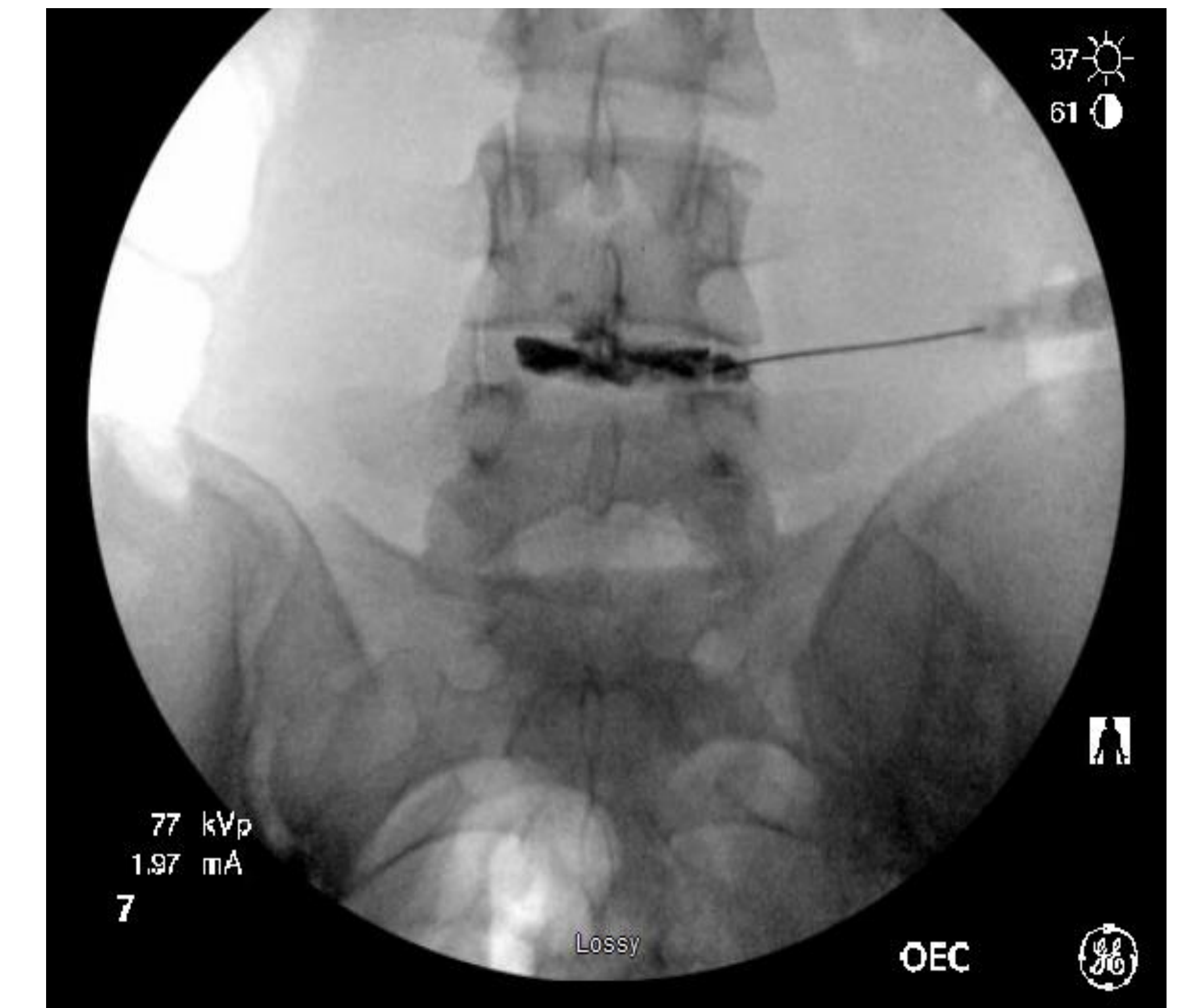


Image 2: L4-L5 Discogram

Discussion

We have highlighted two cases of patients that successfully underwent discograms prior to their surgical fusion, both of which have obtained significant improvement in pain relief and ADL functionality at 3 months post-operatively. Although limitations for extrapolating these case reports to clinical practice exist, it does provide further evidence that the utility of discography as a part of a surgical work-up does exist, and can potentially assist patients in their journey for chronic pain relief.

References

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