

## Introduction

- Discal cysts of the lumbar spine are rare pathologies of the spinal vertebrae
- They are defined as intraspinal extradural cysts with a distinct communication with the corresponding intervertebral discs
- Most commonly reported in young men of Asian descent
- Clinical presentation of lumbar discal cysts is usually lower back pain and radiculopathy, making it difficult to distinguish between lumbar herniation
- The etiology and pathology of discal cysts remains uncertain, though they are believed to occur due to traumatic disruption of the annulus with subsequent accumulation of fluid and pseudocapsule formation.

## Case Description

- Patient is a 26-year-old male with no significant past medical history who presented to the outpatient pain clinic in April 2023 with lower left back pain for two months which began while working out
- He described sharp left lumbar back pain that recently began to radiate down the posterior aspect of his left leg into his left ankle with no associated numbness or paresthesia
- X-ray of the lumbar spine and physical exam were insignificant for any acute pathology, however, concern for a discogenic cause of pain remained high
- MRI of the lumbar spine without contrast showed evidence of a disc herniation at the L4-L5 level and the presence of a discal cyst encasing the L5 root
- He had no relief from either NSAIDs or an oral steroid trial
- His symptoms progressed to involve the lateral thigh and lateral calf, further indicative of L5 root involvement. Neurosurgery evaluated the patient and ordered an MRI with contrast
- MRI of the lumbar spine with contrast showed a 3 mm left paracentral disc bulge at L4-L5 in addition to a posterior left paracentral discal cystic lesion measuring 5 x 7 x 6 mm causing impingement of the exiting left L5 nerve root.
- After a multi-disciplinary discussion, the patient opted to undergo an epidural steroid injection (ESI) with pain management rather than endoscopic spine surgery
- In the first week after the procedure, the patient experienced 90% relief in pain with resolution of radicular symptoms
- Over the next three months, he continued to report 70% relief

## Discussion

- Discal cysts of the lumbar spine remain extremely rare lesions, with limited reports described in current literature
- Clinical symptoms of patients with these lesions are often indistinguishable from patients with typical intervertebral disc herniation or other spinal cysts.
- Advanced imaging and histology have enhanced our ability to identify discal cysts, preventing misdiagnosis of these lesions as other common spinal pathologies
- The reported mean age at diagnosis is  $33 \pm 12.6$  years, which is lower than the age of individuals affected by degenerative lumbar disc herniation
- For patients with lumbar discal cysts the initial management is primarily conservative. NSAIDs and oral steroids form the core of treatment
- Some patients have spontaneous regression of the cysts and will have resolution of their symptoms without further treatment
- If conservative methods fail then surgical management has traditionally been the next step
- Endoscopic resection by a spine surgeon has been shown to be effective in removing the cysts
- However, performing an ESI 1-3 times a year with possible spontaneous regression may be much more appealing to this young population and should be considered prior to surgical resection.
- Given the low prevalence of this rare spinal pathology in young adults, prioritizing such an approach reduces the risk of complications associated with intense surgical procedures while still providing adequate pain relief
- Adherence to follow up appointments with a pain management specialist is also imperative

## Conclusion

- We report a new case of lumbar discal cysts with symptoms and findings resembling a typical lumbar disc herniation, which was successfully treated by ESI
- Although it is a rare pathological entity, these lesions should be considered in the differential diagnosis of low back pain and sciatica
- Interventional spinal modalities appear to be an ideal alternative step in management and treatment of this young population
- If the symptoms remain uncontrolled after multiple ESIs then surgical management remains the definitive treatment
- Our case demonstrates an intermediate approach utilizing ESI as an alternative to surgery and establishing that it can be an effective form of treatment for discal cysts

## Imaging

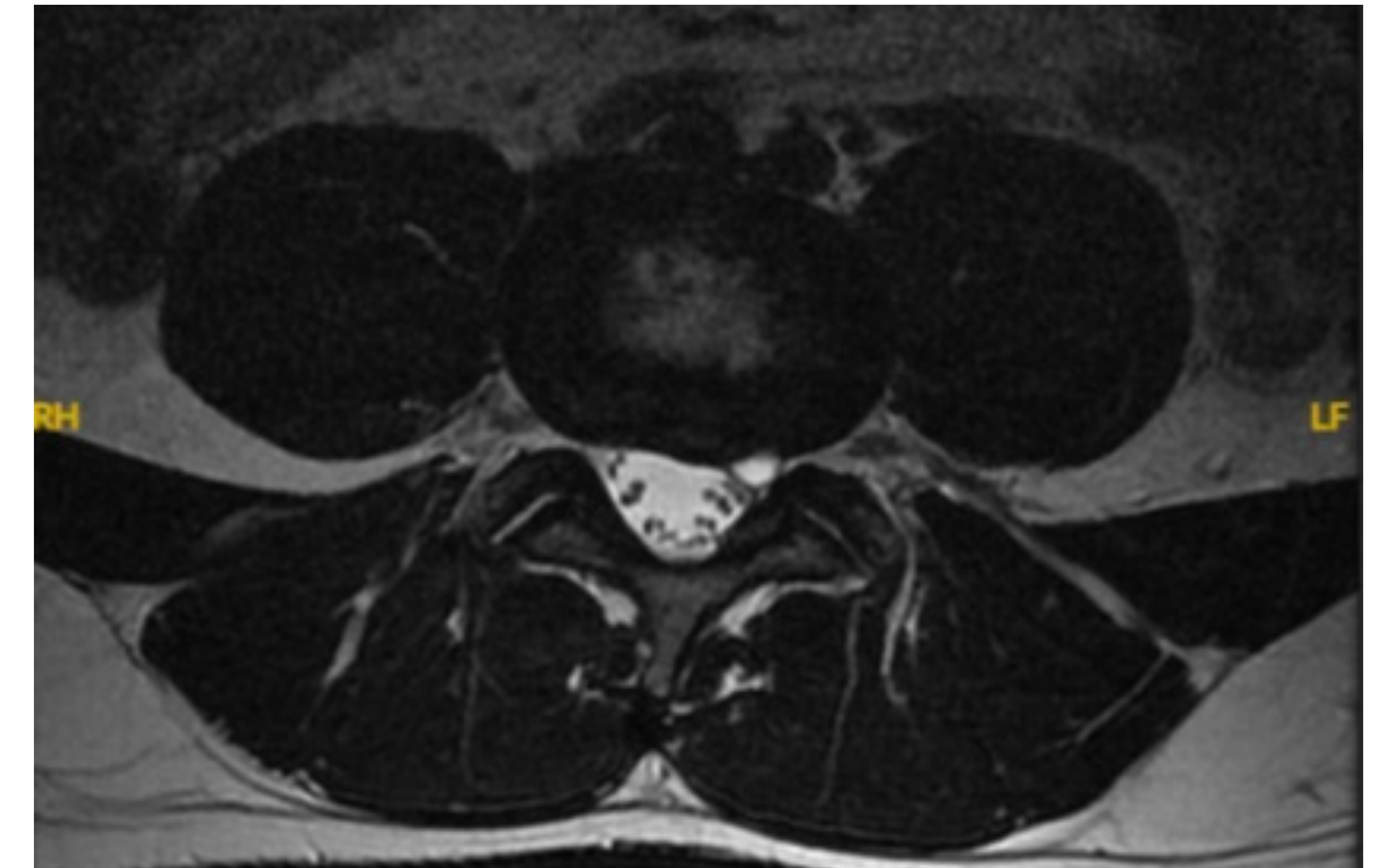


Figure I

Figure I: MRI of the Lumbar Spine with Contrast showing the discal cyst lesion impinging on the left L5 nerve root

## Acknowledgements

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## References

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