

Cauda Equina Syndrome Secondary to a Lumbar Synovial Cyst

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Case Diagnosis

50 year old female presented with debilitating lower back pain and urinary incontinence secondary to a lumbar synovial cyst.

Case Description

50 year old female presented to the PM&R clinic with severe, radiating, intermittent, left sided lower back pain with associated hypoesthesia which worsened over four months. Denied recent inciting events. Admitted to urinary incontinence. No relief from medications including anti-inflammatory or muscle relaxants. MRI revealed a 1.0 x 0.8 x 0.7 cm left posterolateral intraspinal synovial cyst at L4/L5, with associated mass effect upon the thecal sac. Patient underwent a left L4/L5 hemilaminectomy and a resection of the cystic epidural mass. The mass was found to be adjacent to the L4/L5 facet joint resulting in severe compression of the cauda equina. Patient gained her independence with bedside physical therapy and was safely discharged home without the requirement of an assistive device.

Discussion

Synovial cysts are often asymptomatic, incidental findings, however in some cases they may cause compression of the spinal canal. Additionally, these cysts have an increased prevalence in the male population. When diagnosed, they are most commonly located at the L4/L5 spinal level; this is likely due to the increased mobility at the L4/L5 facet joint space. Neurological changes in the lower extremities with associated bladder and or bowel dysfunction must be further evaluated to rule out cauda equina syndrome.

Conclusion

Lumbar synovial cysts are rare incidental findings. This patient represents an uncommon presentation in a middle aged female with significant spinal cord compression resulting in cauda equina syndrome. A thorough review of systems and correlation with early radiologic imaging is imperative in the diagnosis of spinal cord compression in the setting of cauda equina syndrome.



Figure 1: Sagittal view of left intraspinal synovial cyst at L4/L5, with associated mass effect upon the thecal sac.

Resources:

1. Mavrogenis AF, Papagelopoulos PJ, Sapkas GS, Korres DS, Pneumaticsos SG. Lumbar synovial cysts. J Surg Orthop Adv. 2012 Winter;21(4): 232-6. doi: 10.3113/jsoa.2012.0232. PMID: 23327848