

Surgical Intervention for Lumbar Disk Herniation in a Collegiate Football Player: A Case Report

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Background: A 20 year-old male football player presented with insidious onset low back and right sided hip discomfort. The athlete was initially treated in the athletic training clinic with hip strengthening and alignment exercises, which provided partial relief. In the next few weeks, the athlete experienced progressive weakness throughout his right leg. The athlete obtained treatment from a chiropractor with no relief. The patient subsequently visited a physician complaining of increased radicular pain and worsening symptoms with prolonged sitting. On physical exam, there was moderate low back and hamstring spasm with point tender pain at the lumbosacral junction. His back range of motion was limited due to pain in flexion, extension, and right sided flexion. Additionally, there was decreased sensory and motor responses of the S1 nerve root distribution. These findings prompted the ordering of an MRI to identify the origin of the symptoms.

Differential Diagnosis: Lumbar disc pathology, Segmental dysfunction of the lumbar region, Lumbar facet dysfunction, Piriformis syndrome, Lumbar neuroma

Treatment: The MRI showed L4-L5 and L5-S1 disc herniation causing severe narrowing of surrounding foramen and compression of the L5 and S1 nerve roots. The patient was prescribed anti-inflammatory medication which helped control pain and swelling, but his signs and symptoms returned once medication use ceased. Five weeks since the first presentation of pain the radicular symptoms began to worsen, resulting in greater strength loss on the right side leading to a pronounced limp. This deterioration prompted a microdiscectomy surgical procedure of the L5-S1 disc in order to relieve the radicular pain and dysfunction. Following surgery, the patient was pain free and is currently addressing the ongoing weakness in his right leg through rehabilitation in the athletic training clinic.

Uniqueness: Low back pain is a common issue in the athletic population, particularly in sports like football. However, lumbar disc pathology is not the common cause of this back pain. Furthermore, a double disc herniation leading to radicular symptoms resulting in the need for surgical intervention is highly unusual within the collegiate age population. The risk of a disc pathology leading to surgery is still low as reported in one study that followed a football team for ten seasons finding that spinal surgeries only made up 2% of all required surgeries.¹

Conclusion: Low back pain is a common complaint in athletics and can usually be treated quickly and conservatively without surgical intervention. Disc pathology, while not an uncommon cause of low back pain, is rare for an otherwise healthy 20 year old. But even more unusual is herniating two discs resulting in severe radicular symptoms requiring surgical intervention. When taking in account all patients with disc herniation, 87% were effectively treated with pain medication and rehabilitation only.² This case presentation shows that surgical intervention might be necessary when conservative treatment fails and symptoms significantly alter activities of daily life.

Word Count: 472

Reference:

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