Lumbar disc herniation clinical features

Clinical features and symptoms, using the visual analog scale (VAS) and Oswestry disability index (ODI).

see also Lumbar disc herniation diagnosis.

- Development and validation of a prognostic prediction model for lumbar-disc herniation based on machine learning and fusion of clinical text data and radiomic features
- Reoperation Rates After Lumbar Discectomy in Pediatric Patients
- When can lumbar fusion be considered appropriate in the treatment of recurrent lumbar disc herniation? A systematic review and meta-analysis
- Predicting intraoperative blood loss risk in severe lumbar disc herniation patients undergoing PLIF: a multicenter cohort study using ensemble learning
- Lumbar angiomatous meningioma: how to manage this rare entity? A case report
- Adjacent segment disease induced by spinal tophus: a case report
- Simplifying Transforaminal Endoscopic Lumbar Discectomy (TELD) Through the Guiding Framework of Ten Landmarks
- Evaluation of Clinical Symptoms of Unilateral S1 Nerve Injury Caused by Disc Herniation the via High Resolution MRI and DTI

● Symptoms may start off with back pain, which after days or weeks gradually or sometimes suddenly yields to radicular pain often with a reduction of the back pain

● Precipitating factors: various factors are often blamed, but are rarely identified with certainty

● Pain relief upon flexing the knee and thigh (e.g. lying supine with a pillow under the knees)

● Patients generally avoid excessive movements; however, remaining in any one position (sitting, standing, or lying) too long may also exacerbate the pain, sometimes necessitating position changes at intervals that range from every few minutes to 10–20 minutes. This is distinct from constant writhing in pain e.g. with ureteral obstruction

● “cough effect”: ↑ pain with coughing, sneezing, or straining at the stool. Occurred in 87% of patients with HLD in one series

● bladder symptoms: the incidence of voiding dysfunction is 1–18%.

Most common: difficulty voiding, straining, or urinary retention. Reduced bladder sensation may be the earliest finding.

The possible causes of this are sensory loss or incomplete interruption of the preganglionic parasympathetic fibers. Later it is not unusual to see “irritative” symptoms including urinary urgency, frequency (including nocturia), and increased post-void residual. Less common: enuresis, and dribbling incontinence; NB: frank urinary retention may indicate cauda equina syndrome.

Occasionally an HLD may present only with bladder symptoms which may improve after surgery.

Discectomy may improve bladder function, but this cannot be assured

Back pain per se is usually a minor component (only 1% of patients with acute low back pain have sciatica), and when it is the only presenting symptom, other causes should be sought;

Sciatica has such a high sensitivity for disc herniation, that the likelihood of a clinically significant disc herniation in the absence of sciatica is ≈ 1 in 1000. Exceptions include a central disc herniation which may cause symptoms of lumbar stenosis (i.e., neurogenic claudication) or a cauda equina syndrome.

Lumbar disc herniation is one of the most common diseases that can cause low back pain and sciatica.

Cauda equina syndrome is possible in massive disc herniation.

Mood and anxiety disorders were more commonly seen in patients with lumbar disc herniation than in those without herniation. No relationship was detected between pain severity and mood or anxiety disorders. However, mood and anxiety disorders were associated with neurological deficits [1].

Contralateral Symptoms

ar disc herniation (LDH) is a common pathology that typically causes unilateral radiculopathy on the same side as herniation, while patients may occasionally present with contralateral symptoms. Owing to the rare incidence of LDH with contralateral symptoms, the pathological mechanism remains unclear and the optimal surgical strategy is a subject of debate. This study aimed to provide new insights into the pathological mechanism of contralateral symptoms and assess the efficacy of ipsilateral hemilaminectomy and discectomy surgery in this population.

Methods: This study was a retrospective, single-center, clinical case series, including 11 LDH cases with exclusive contralateral symptoms. We searched for LDH cases that were presented at our institution between January 2011 and December 2020. Adult LDH Patients with contralateral radicular pains were included, while those with ipsilateral radiculopathy, lumbar stenosis, foraminal stenosis on the symptomatic side, multilevel disc herniations, scoliosis, and lumbar operation history were excluded. Visual Analog Scale (VAS), clinical features, radiographic images, and other data were collected from the study cohort of 11 cases for further analysis. We also reviewed LDH cases in English literature from 1978 to 2023 to analyze their clinical characteristics and treatment.

Results: The incidence rate of LDH with contralateral symptoms in single-level LDH cases was 0.32%. The average age of our 11 cases was 49.3 years old, and five of them were female (45.5%). All individuals had single-level lateral LDH, with six cases (54.5%) located at L4-5 and five cases (45.5%) located at L5-S1. Upon admission, patients presented with lower back pain (seven cases, 63.6%), radicular pain (seven cases, 63.6%), hypoesthesia (seven cases, 63.6%), and muscle weakness (one case, 9.1%) on the contralateral side alone. Each case experienced ipsilateral hemilaminectomy and discectomy, and no lateral recess stenosis, hypertrophy of facets or ligaments, and sequestrated discs were found during surgery. All of them have good pain relief with two cases reporting no pain and nine cases reporting only mild pain at the last follow-up.

Conclusions: Based on the surgical findings of our 11 LDH cases with contralateral symptoms, we hypothesized that the contralateral symptoms might be produced when the nerve root on the contralateral symptomatic side was tightly pulled by the herniated disc via the dural mater. Ipsilateral hemilaminectomy and discectomy surgery effectively and efficiently relieve the symptoms without postoperative complications for these patients [2)]

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Kayhan F, Albayrak Gezer İ, Kayhan A, Kitiş S, Gölen M. Mood and anxiety disorders in patients with chronic low back and neck pain caused by disc herniation. Int J Psychiatry Clin Pract. 2015 Nov 2:1-5. [Epub ahead of print] PubMed PMID: 26524007.
2)
Gao Q, Yang H, Masood U, Zhou C, Cen Y, Song Y. Lumbar Disc Herniation with Contralateral Symptoms: A Case-Series of 11 Patients and Literature Review. Orthop Surg. 2023 Sep 25. doi: 10.1111/os.13849. Epub ahead of print. PMID: 37749774.