Dynamic Chiropractic

Optimum Signs for Presence and Degree of Lumbar Disc Herniation

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It appears from a study by Vucetic and Svensson[1] that only three physical signs are of real diagnostic value in predicting whether there is a lumbar disc herniation and the degree or grade of herniation. This study was a prospective rather than a retrospective study on 163 consecutive patients operated on for probable herniated discs. The three signs were the range of lumbar sagittal motion, the Lasegue sign, and the crossed Lasegue sign. They found that these tests were significant for the presence of a herniation and the degree of herniation, but not accurate for the level of herniation.

Neurologic signs, while important for distinguishing between radicular and referred pain, are not of great value in diagnosing the grade or level of a herniation.[2] One third of patients with an absent Achilles reflex had a hernia above L5-Sl and the diagnostic value of an absent Achilles reflex may decrease with age.[3] The absence of an Achilles reflex is more reliable than a diminished reflex as a sign of disc herniation, and its diagnostic value increases markedly if correlated with diagnostic imaging.[4] Although patellar areflexia is six to seven times more common in L3-L4 hernias than other levels, only one-quarter of the patients with this sign had L3-L4 hernias.[1]

The strongest indicator for the grade of hernia was the range of sagittal lumbar motion. The range of lumbar motion decreased with increasing grades of herniation. The range was negligible for protruded hernia (generalized bulge with root involvement), and progressively decreased with an extruded disc hernia (posterior ligament still intact) and sequestrated (complete hernia beyond the posterior ligament). The crossed Lasegue sign, which was meaningful only if it was associated with the unilateral positive Laseque sign, was also proportionate to the grade of the hernia. Therefore the use of both the lumbar range-of-motion and crossed Lasegue sign predicted 74 percent of uncontained (sequestrated hernias), and 68 percent of contained hernias (protruded and extruded). In this study the Lasegue was only considered positive if pain radiated to the foot.

References

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