

Low lumbar disc prolapse

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A 40-year-old builder develops pain extending from his right buttock to his right calf following chiropractic manipulation for a recent episode of low back pain. How would you treat this patient and what is his prognosis?

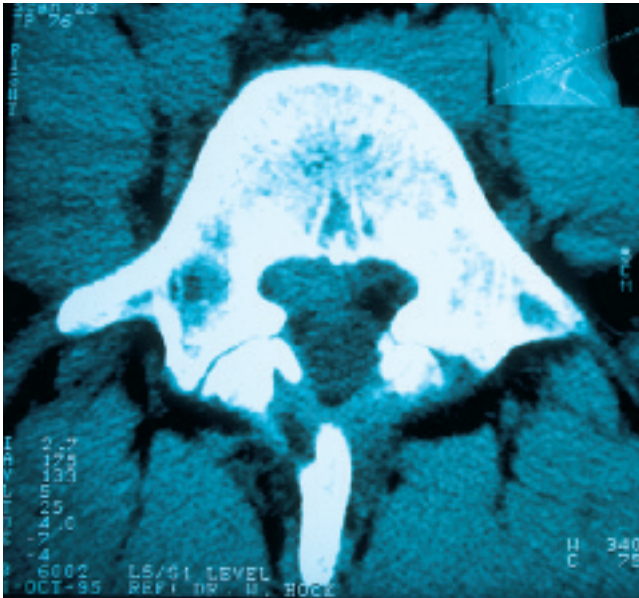


Figure. A CT scan of a right lumbosacral disc prolapse with S1 nerve root compression.

Case presentation

A 40-year-old builder presents with a two-day history of severe low lumbar pain following a lifting and twisting injury at work. Rest is advised, but he undergoes a series of chiropractic manipulations. His back pain suddenly disappears and is replaced by pain in the right buttock, posterior thigh and posterior calf. He also has numbness on the outer and under surfaces of the right foot.

The relevant physical findings are: a loss of lumbar lordosis and a list to the left, marked restrictions of lumbar movement, marked restriction of straight leg raising (which reproduces his pain), and an absent right ankle jerk.

Diagnosis

The initial episode of severe back pain signified an annular tear of a low lumbar disc without disc prolapse. However, following chiropractic manipulation, the tear extended, nuclear material extruded through the tear, and the diagnosis became that of right lumbosacral disc prolapse with S1 nerve root compression. The clinical diagnosis is almost certain but can be confirmed by a CT scan (see Figure) or MRI scan.

Discussion

This patient has a 90% chance of spontaneous resolution of his symptoms, and a 10% chance of requiring surgery or an injection of chymopapain (Chymodiactin). In either case, his chance recurrence later down the track is approximately 10%. Currently, he requires bed rest and analgesics, followed by limited activities (sometimes supplemented with a brace or corset) for a minimum of six weeks. He should be referred if severe pain persists or if neurological loss increases, although the latter is unlikely.

The likelihood of recurrent episodes of mechanical back pain means that the patient should be making plans to employ an assistant builder and to adopt a more supervisory role at work.

Keypoints

- Most cases (90%) of low lumbar disc prolapse resolve spontaneously. Pain resolves long before numbness and weakness resolve.
- Surgery may be required for persistent pain or (rarely) for increasing neurological deficit.
- Long term mechanical backache is a common sequel of low lumbar disc prolapse and has significant implications for employment.

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