Early surgery was better than conservative care for short-term disability and pain in sciatica

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STUDY DESIGN
Design: randomised controlled trial.
Allocation: {concealed}*. †
Blinding: unblinded. †

STUDY QUESTION
Setting: 9 hospitals in the Netherlands.
Patients: 283 patients 18–65 years of age (mean age 45 y, 66% men) who had 6–12 weeks of sciatica diagnosed by a neurologist, disc herniation with nerve root compression confirmed by magnetic resonance imaging, and pain distribution and neurological disturbances correlated to the same nerve root. Exclusion criteria included cauda-equina syndrome, severe paresis, same complaints within 12 months, and history of spinal surgery, spinal stenosis, deformity, or severe comorbidity.
Intervention: early surgery (n = 141), which included removal of disc herniation using a unilateral transfalval approach and removal of loose degenerated disc material, or conservative care (n = 142) provided by family physicians, with consideration of surgery for increasing leg pain and neurological deficit (within 6 mo) or persistent sciatica (after 6 mo).
Outcomes: included functional disability (23-point Roland disability questionnaire for sciatica, higher score = worse functional status), and leg and low back pain (100 mm visual analogue scale [VAS], higher scores = worse pain).
Follow-up period: 2 years.
Patient follow-up: 92% (intention-to-treat analysis).

MAIN RESULTS
44% of the conservative care group had surgery within 2 years. Early surgery improved disability (mean difference [MD] in Roland score 3.1, CI 1.7 to 4.5), leg pain (MD in VAS 18, CI 12 to 23), and back pain (MD in VAS 11, CI 6 to 17) at 8 weeks and leg pain (p = 0.05) over 2 years (figure); groups did not differ for disability (p = 0.25) or back pain (p = 0.41) over 2 years.

CONCLUSION
In the short term, early surgery reduced disability, leg pain, and back pain more than conservative care in sciatica.

*Information provided by author.
†See glossary.