Surgical Versus Nonsurgical Treatment for Lumbar Spinal Stenosis.

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Abstract

STUDY DESIGN: A systematic review.

OBJECTIVES: The aim of this study is to evaluate the effectiveness of different types of surgery compared with different types of nonsurgical interventions in adults with symptomatic lumbar spinal stenosis (LSS).

SUMMARY OF BACKGROUND DATA: LSS is a debilitating condition associated with degeneration of the spine with aging. People with LSS experience a range of symptoms, including back pain, leg pain, numbness and tingling in the legs, and reduced physical function. Main treatment options are surgery, physical therapy, exercise, braces, and injections into the spine.

METHODS: We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, five other databases, and two trials registries up to February 2015, reference lists, and conference proceedings related to treatment of the spine. Randomized controlled trials (RCTs) compared surgical versus nonoperative treatments in participants with LSS. Outcomes included quality of life, disability, function, pain, complication rates, and side effects.

RESULTS: From the 12,966 citations screened, we included five RCTs (643 participants). Three studies compared spine surgery versus various types of nonsurgical treatment. It is difficult to draw conclusions from these studies because nonsurgical treatments were inadequately described. One study that compared surgery versus bracing and exercise found no differences in pain. Another study compared surgery versus spinal injections and found better physical function with injections, and better pain relief with surgery at six weeks. Still another trial compared surgery with an implanted device versus nonsurgical care. This study reported favorable outcomes of surgery for symptoms and physical function.

CONCLUSION: We cannot conclude on the basis of this review whether surgical or nonsurgical treatment is better for individuals with LSS. Nevertheless, we can report on the high rate of effects reported in three of five surgical groups, ranging from 10% to 24%. No side effects were reported for any of the conservative treatment options.

LEVEL OF EVIDENCE: 1.