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Diagnosis of lumbar spinal stenosis: a systematic review of the accuracy of diagnostic tests.

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Source

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Abstract

STUDY DESIGN:

Systematic review of diagnostic studies.

OBJECTIVE:

To investigate the diagnostic performance of tests used to detect lumbar spinal stenosis.

SUMMARY OF BACKGROUND DATA:

Little is known about the diagnostic accuracy of tests in detecting lumbar spinal stenosis. A systematic review will provide more insight in this topic.

METHODS:

We performed a literature search in Medline (PubMed) and Embase for original diagnostic studies on lumbar spinal stenosis, in which one or more different tests were evaluated with a reference standard, and diagnostic values were reported or could be calculated. Two reviewers independently checked all abstracts and full text articles for inclusion criteria. Included articles were assessed for their quality using the Quadas tool. Study features and diagnostic values were extracted from the included studies.

RESULTS:

Of the 24 articles included in this review, 15 concerned imaging tests, 7 evaluated "clinical tests," and 2 reported on other diagnostic tests. The overall quality was poor; only 5 studies scored positive on more than 50% of the quality items. Estimates of the diagnostic value of the tests differed considerably. The imaging studies showed no superior accuracy for myelography compared with CT or MRI. Overall, there is considerable variation in the clinical tests; some studies show high sensitivity, whereas others show high specificity.

CONCLUSIONS:

Because of heterogeneity and overall poor quality, no firm conclusions about the diagnostic performance of the different tests can be drawn. Better-designed studies exploring the accuracy of diagnostic tests are needed to improve the diagnostic policy.

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