

— such as the trials of rituximab in multiple sclerosis — that our fundamental concepts of disease causation receive real-life tests.

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1. Bar-Or A, Calabresi PA, Arnold D, et al. Rituximab in relapsing-remitting multiple sclerosis: a 72-week, open-label, phase I trial. *Ann Neurol* 2008;63:395-400.

Lumbar Spinal Stenosis

TO THE EDITOR: As Katz and Harris (Feb. 21 issue)¹ note, electromyography is not routinely necessary in the diagnostic workup of spinal stenosis. However, a complete electrodiagnostic examination (i.e., nerve-conduction studies and electromyography) can often be quite helpful in differentiating symptoms related to spinal stenosis from those due to a peripheral neuropathy. In general, a patient with clinically significant spinal stenosis will have electromyographic evidence of multilevel lumbosacral radiculopathies with essentially normal nerve-conduction studies, whereas a patient with clinically significant peripheral neuropathy will have just the opposite findings (i.e., abnormal nerve-conduction studies and normal electromyography).² Even when both disorders are present, it is frequently possible to identify the one that is more symptomatic, since electrodiagnostic testing can also delineate the severity of each process.

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1. Katz JN, Harris MB. Lumbar spinal stenosis. *N Engl J Med* 2008;358:818-25.

2. Dumitru D, Zwarts MJ. Radiculopathies. In: Dumitru D, Amato AA, Zwarts MJ, eds. *Electrodiagnostic medicine*. 2nd ed. Philadelphia: Hanley & Belfus, 2002:757-8.

TO THE EDITOR: Katz and Harris did not discuss recent evidence that provides support for the role of physical therapy in the treatment of lumbar spinal stenosis. A randomized trial in 2006 showed that patients who walked on a treadmill with body-weight support and received manual physical therapy improved significantly ($P=0.002$) in measures of disability, satisfaction, and treadmill walking as compared with those who participated in just the treadmill and exercise program.¹ These results were maintained at 1 year. When

evaluating the effects of nonsurgical care, it is important to differentiate what may be standard practice from what is current best evidence-based practice.

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1. Whitman JM, Flynn TW, Childs JD, et al. A comparison between two physical therapy treatment programs for patients with lumbar spinal stenosis: a randomized clinical trial. *Spine* 2006;31:2541-9.

TO THE EDITOR: Katz and Harris refer to a study in which “the finding of a wide-based gait among patients with back pain had a specificity exceeding 90% for lumbar spinal stenosis.” In the preceding sentence, this feature is attributed to involvement of the posterior columns. I take issue with both the observation and the interpretation. The study in question, of which Katz was the first author,¹ provided no definition of “wide-based gait,” and the diagnostic value of the sign was not tested in a different population. The reference to the posterior columns is misleading, since normally the lumbar spinal canal contains only the roots of the cauda equina, not the spinal cord with its columns. The cord ends at the level of the first lumbar vertebra.

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1. Katz JN, Dalgas M, Stucki G, et al. Degenerative lumbar spinal stenosis: diagnostic value of the history and physical examination. *Arthritis Rheum* 1995;38:1236-41.

THE AUTHORS REPLY: We agree with Kortebein that electromyography and nerve-conduction studies are useful in distinguishing the polyradiculop-

athy of lumbar spinal stenosis from peripheral neuropathy. We are not aware of data indicating that the severity of electrodiagnostic findings can be used to identify whether radiculopathy or co-existing neuropathy is the most symptomatic process in a patient who has both disorders.

Rhon points to a randomized trial that was not included in our review. This study shows the efficacy of manual physical therapy in conjunction with a treadmill-walking program with body-weight support as compared with flexion exercises and the treadmill-walking program. These promising findings merit further investigation.

Our 1995 report on the sensitivity and specificity of medical-history and physical findings in patients with spinal stenosis¹ identified wide-based gait, in which patients walk with their feet separated by a greater-than-usual distance, as a

sign that is insensitive (present in 43% of patients with stenosis) but specific (absent in 91% of patients without stenosis) and that helps to distinguish lumbar spinal stenosis from other sources of back pain. As van Gijn suggests, further work on the reliability and validity of this and other medical-history and physical findings would be a welcome addition to the literature. We appreciate van Gijn's clarification regarding the presence of descending nerve roots, rather than the posterior column (spinal cord), at the lower lumbar levels.

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1. Katz JN, Dalgas M, Stucki G, et al. Degenerative lumbar spinal stenosis: diagnostic value of the history and physical examination. *Arthritis Rheum* 1995;38:1236-41.

More on Ovarian Insufficiency with Imatinib

TO THE EDITOR: Christopoulos et al. (March 6 issue)¹ report a case of primary ovarian insufficiency associated with imatinib. Although the data provided are suggestive of primary ovarian insufficiency, the cause-and-effect relationship is speculative, not reaching the "probable" level on an objective causality-assessment scale.² It is noteworthy that fertility in female rats is not adversely affected by imatinib, and pregnancy in women taking imatinib has occurred.^{3,4} Also, despite the expanding use of imatinib, no other cases of primary ovarian insufficiency have been reported. All these facts, along with the presence of follicles in the patient's ovaries on ultrasonography and the delay in the development of her amenorrhea, are inconsistent with the proposed mechanism and with the understanding of toxicant-induced apoptosis of female germ cells.⁵ Moreover, alternative etiologic factors, including other exposures, were not addressed, and the possibility of spontaneous, karyotypically normal primary ovarian insufficiency — a largely idiopathic condition in which ovarian function is generally intermittent and unpredictable — was not systematically ruled out. This finding may well be a chance association, and only careful, long-term evaluation of patients receiving imatinib can determine its validity.

The views expressed in this letter are those of the authors and do not constitute an official position of the Department of Health and Human Services.

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2. Naranjo CA, Busto U, Sellers EM, et al. A method for estimating the probability of adverse drug reactions. *Clin Pharmacol Ther* 1981;30:239-45.
3. Novartis. Gleevec prescribing information. (Accessed May 23, 2008, at http://www.pharma.us.novartis.com/product/pi/pdf/gleevec_tabs.pdf.)
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5. Tilly JL. Molecular and genetic basis of normal and toxicant-induced apoptosis in female germ cells. *Toxicol Lett* 1998;102-103:497-501.

THE AUTHORS REPLY: The Naranjo probability scale referred to by Malozowski et al. was recently reported to lack reproducibility and have a poor