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Poser C M, Paty D W, Scheinberg L, McDonald W I, Davis F A, Ebers G C, Johnson K P, Sibley W A, Silberberg D H & Tourtellotte W W. New diagnostic criteria for multiple sclerosis: guidelines for research protocols. *Ann. Neurol.* 13:227-31, 1983. [Boston Univ. Sch. Med.. MA; Vancouver Gen. Hosp., Canada; Albert Einstein Coll. Med., Bronx. NY; Natl. Hosp.. London. England; Rush-Presbyterian-Si. Luke's Med. Ctr.. Chicago. IL; Univ. West. Ontario, London, Canada; Univ. Maryland Sch. Med., Baltimore. MD; Univ. Arizona Sch. Med., Tucson, AZ; Univ. Pennsylvania Sch. Med., Philadelphia, PA; Univ. California Sch. Med., Los Angeles, CA]

New diagnostic criteria for multiple sclerosis were designed primarily for epidemiologicai and therapeutic research. These new criteria have become almost universally adopted and have facilitated comparison of results obtained by investigators in many countries. They have also extended the bases for inclusion of patients into such projects. [The *SCI*® indicates thatthis paper has been cited in more than 730 publications.]

Research In MS

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Ever since J. Charcot first gave a clinical description of multiple sclerosis (MS) more than 100 years ago,[1] neurologists have searched for a specific diagnostic laboratory test for this disease. My interest in MS dates back to my residency under the tutelage of Houston Merritt, a superb intuitive diagnostician with a well-deserved reputation for "shooting from the hip," but with an uncannily almost perfect score. The variability of its clinical presentation, the poor correlation between the number and location of the lesions shown at autopsy, and the clinical manifestations, as well as the unpredictability of its course all contribute to the fascination the disease has always held for neurologists.

In 1963,1 sent detailed clinical protocols of 25 autopsy-proven cases of MS to almost 200 experienced neurologists all over the world and asked them to rate them as probable, possible, or unlikely. For the *entire* group, there was agreement for two-thirds of the cases, but for *each* of the individual cases, agreement ranged from less than 5 percent to almost 100 percent.[2] It was clear that comparisons between published results of epidemiologicai surveys and therapeutic regimens were unreliable. By coincidence, at the same meeting, a group headed by George A. Schumacher presented the first diagnostic criteria based entirely on clinical signs and symptoms.[3]

These were quickly adopted by MS clinicians and researchers and remained the standard for many years. Other schemes proposed by A.S. Rose et al.[4] and by W.I. McDonald and A.M. Halliday[5] offered some refinements of the Schumacher criteria, but never gained their worldwide popularity.

In 1982,1 convened a group of distinguished American, Canadian, and British specialists in various aspects of MS to discuss incorporating technological advances into diagnostic criteria. The two-day conference, held in Washington, DC, was remarkable in that specialists with widely different backgrounds and opinions reached a consensus that resulted in the eventual publication of the criteria almost exactly a year later.

The new criteria continued to emphasize the fact that the diagnosis of MS remains a clinical one and that the paraclinical and CSF tests are only useful for confirming the clinical diagnosis. It was most gratifying to have Schumacher give the new guidelines his imprimatur.

The diagnosis of MS, preferably made by an experienced neurologist, remains firmly based on the presence of dissemination *both* in space and in time. It is regrettable that today many neurologists are now relying exclusively upon nonspecific magnetic resonance imaging to diagnose MS in their patients.

In a comparison of several previously published diagnostic classifications G. Izquierdo et al.[6] reached the concl usion that the premortem diagnosis of 70 autopsy-confirmed cases of MS using the 1983 Poser et al. criteria was 87 percent correct and that these were more sensitive than those used previously. More recently EDMUS, the European database for MS, officially adopted these guidelines.[7]

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