S-100 Protein Marker

TO THE EDITOR:

I am concerned about the use of the commercial Dakopatts rabbit antiserum to the bovine S-100 protein. I understand that Dako antisera are routinely raised using Complete Freund's Adjuvant, so that crude antisera contain not only antibodies to the primary antigen of interest, in this case S-100 protein, but also to mycobacterial components. Unless the authors are certain that complete adjuvant was not used, or that the antiserum was affinity purified with S-100 protein, one should assume that both S-100 protein and mycobacterial antigen specificities are present. Consequently, any positive immunohistochemical staining may be attributable to the presence of either S-100 protein or some mycobacterial component, such as arabinogalactan or lipoarabinomannan, that is common to all mycobacterial species.

Such considerations do not invalidate the visualization of fragmented peripheral nerves, regardless of the antigen that is being stained. However, the staining of Langerhans', dendritic, and other cells may be misleading, because it indicates that the cells express the S-100 protein. Does positive staining truly represent the presence of the S-100 protein, or residual mycobacterial material, or even some unknown antigen?

The specificity of the primary antiserum could be checked in several ways: a) use of tissues from patients with nonmycobacterial diseases; b) absorption of the primary antiserum with mycobacteria; c) competition of the primary antiserum with purified S-100 protein; d) use of a Dakopatts antiserum directed against an irrelevant antigen.

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Therapeutic Implications of Morphological Study of Nerves from Treated or Untreated Tuberculoid or Lepromatous Leprosy*

TO THE EDITOR:

In view of the overoptimism prevailing in several parts of the world, especially in India, and to dispel misleading notions of "eradicating" or "curing" leprosy by the year 2000, it is considered essential to publish, even as Correspondence, our light- and electron-microscopic findings on 27 nerve biopsy specimens referred to us by a variety of clinical specialists, notably neurologists, dermatologists, internists, and plastic surgeons. These were totally unsolicited random cases sent to us for nerve biopsy examination in view of nearly 40 years of interest in and work on leprous neuritis by one of us (DKD).

A third of the biopsies (9) were from patients who had leprosy already diagnosed, several months to years earlier, by clinical and/or skin biopsy examination (see table below). Approximately another third of the biopsies were from patients with leprosy suspected for the first time from clinical signs or "sensory-motor neuropathy," generally with some thickening and tenderness of the large nerve trunks, and with or without EMG

* Abstract of talks given at: a) Workshop W.S.1 on "Tropical Neurological Diseases," XI International Congress of Neuropathology, Kyoto, Japan, September 1990 (Chairmen: Prof. D. K. Dastur and Prof. Itakura), and b) Workshop W.S.2.9 on "Infectious Neuropathies," VII International Congress on Neuromuscular Diseases, Munich, Germany, September 1990 (Chairmen: Prof. D. K. Dastur and Prof. G. Said).