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Cyclosporine and Multiple Sclerosis

M. P. Pender, MD, PhD, FRACP

Department of Medicine, The University of Queensland; Department of Neurology, The Royal Brisbane Hospital Brisbane, Australia

I read with interest the paper by The Multiple Sclerosis Study Group reporting that cyclosporine delayed the progression of multiple sclerosis [1]. As stated in the introduction, the rationale for undertaking the study was partly based on the ability of cyclosporine to suppress the development of experimental allergic encephalomyelitis (EAE), a T-cell-mediated autoimmune disease that serves as a possible model of multiple sclerosis [2, 3]. Recent studies have shown, however, that the administration of low-dose cyclosporine can convert acute EAE, a self-limited monophasic disease, into chronic relapsing EAE [4, 5] with large plaques of spinal cord demyelination [5]. Low-dose cyclosporine also converts acute experimental allergic neuritis (EAN), another autoimmune T-cell-mediated disorder, into chronic relapsing EAN [6]. The mechanism by which cyclosporine facilitates the development of chronic relapsing EAE or EAN is unclear, but it is likely that it interferes with immunoregulation as demonstrated by its ability to induce syngeneic graft-versus-host disease [7] and, when administered neonatally, autoimmune disease [8]. In view of these recent observations, the possibility that cyclosporine may aggravate multiple sclerosis in some patients should be borne in mind. This may be more likely to occur in patients on a low dose of cyclosporine.

References

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