■ Oral prednisone in multiple sclerosis

Morrow et al. compared the total amount of corticosteroid absorbed after 1,250 mg oral prednisone vs 1 g IV methylprednisolone in 16 patients with multiple sclerosis. The amount absorbed was similar for oral and IV preparations.

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■ The battle of steroids in MS relapses: Oral versus intravenous

Commentary by Omar Khan, MD, and Robert Lisak, MD

Corticosteroids (CS) modulate the immune system in a number of ways relevant to the immunopathogenesis of MS including suppression of T-cell proliferation, inhibition of Th1 cytokines, induction of Th2 gene expression, and reduction of lymphocyte endothelial adhesiveness and trafficking into the CNS.¹ The effect on brain MRI scans is demonstrated by a rapid reduction in gadolinium enhancement and reduction of brain volume over a long-term period.^{2,3}

Although many CS regimens have been employed, treatment with IV methylprednisolone (IVMP) at a dose of 1 g/d for 3 to 5 days with or without a brief oral CS taper is probably the most commonly used regimen for treating MS relapses. The optimal dosing regimen of CS in the treatment of MS relapses remains unknown. Another concern regarding the optimal dosing and use of CS in MS emerged from the Optic Neuritis Treatment Trial (ONTT) suggesting that low dose oral prednisone given for a brief period was associated with increased risk for recurrent optic neuritis, whereas treatment with IVMP delayed subsequent develop-

ment of clinically definite MS.⁴ The results of the ONTT reinforced the use of IVMP for treating MS relapses. It has been reported that treatment of MS relapses with IVMP followed by or without an oral prednisone taper has no effect on subsequent neurologic recovery.⁵ Together, these observations have tended to discourage the use of oral prednisone by itself in the treatment of MS relapses.

The cost of a 5 day high-dose oral prednisone is approximately US \$30 compared to US \$600 for IVMP largely because of the logistics involved in the administration of IVMP. The Morrow et al. study comparing the bioavailability of 1,250 mg of oral prednisone and 1 g of IVMP showed that at 24 hours after dosing, no differences were observed between the two groups. The investigators have previously reported the gastric tolerance and safety of high dose oral prednisone.⁶ The stage is now set to undertake a large well-designed study to examine and compare the optimal dosing regimen, clinical efficacy, safety, and bioequivalence of high-dose oral prednisone and IVMP in treating MS relapses. The results of

such a study may have important implications for patient convenience and treatment costs.

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