

**Editors' Note:** Oral medications for multiple sclerosis (MS), such as fingolimod, are an attractive alternative to injectable treatments. But postmarketing, potentially dangerous adverse effects such as the one reported below by Kinney and earlier by Visser et al. may help physicians and their patients plan the best treatment option for the patient's disease. In sub-Saharan Africa, there is an urgent need for optimizing preventive interventions for stroke (e.g., education and lowering prevalence of hypertension). Goldstein provides scientific proof for Chin's personal experience after visiting Mulago Hospital in Uganda.

*Chafic Karam, MD, and Robert C. Griggs, MD*

#### TUMEFACTIVE MULTIPLE SCLEROSIS LESIONS UNDER FINGOLIMOD TREATMENT

**Michael O. Kinney, Gavin McDonnell, Belfast:**

We would like to add our experience to the case reported by Visser et al.<sup>1</sup>

We diagnosed a 28-year-old woman with MS based on imaging, CSF, and oligoclonal bands. Treatment with glatiramer acetate (Copaxone) was initiated and continued for 6 years. She had clinically quiescent disease until April 2012, when she developed visual disturbance, ataxia, word-finding difficulties, poor concentration, and right hemisensory disturbance. Copaxone was stopped due to injection fatigue and with the intention of initiating fingolimod.

By the end of April, she had worsening ataxia, dyspraxia, and bilateral extensor plantars. IV methylprednisolone helped and she began treatment with fingolimod in May 2012. One month later, she had continence, speech, and cognitive difficulties, dyspraxia, ataxia, and right homonymous hemianopia. Fingolimod was stopped. MRI demonstrated extensive periventricular, callosal, and cerebral peduncle load with evidence of diffusion restriction consistent with late development of tumoral MS.

In clinical trials, fingolimod was used when the disease course was stable.<sup>2</sup> In our case, it was used during active disease. It was temporally associated with a worsening of the clinical condition culminating in tumefactive MS several years after initial disease onset. We advocate a cautious approach in using novel immunomodulatory drugs.

**Author Response: Mike P. Wattjes, Femke Visser, Bob W. van Oosten, Amsterdam:** We read the clinical observation by Kinney et al., who described a patient presenting with tumefactive demyelinating lesions 1 month after the initiation of fingolimod therapy for MS. This observation confirms other case reports documenting the occurrence of atypical (tumefactive) demyelination<sup>1</sup> and multifocal inflammatory disease progression in patients with MS treated with fingolimod.<sup>2-4</sup> Disease progression might be initiated by a switch from natalizumab to fingolimod in some cases,<sup>3,4</sup> but also occurs in other situations, typically in the early stage of fingolimod treatment.<sup>1,2</sup> These observations highlight that clinical and radiologic monitoring of patients with MS treated with the new generation of immunomodulative and immunosuppressive drugs goes beyond the early detection of possible opportunistic infections such as progressive multifocal leukoencephalopathy. Disease exacerbation and progression as a consequence of treatment failure or (unknown) side effects can also have negative consequences for the patient's prognosis. Although phase II and III studies have shown that fingolimod has a rather low and calculable risk profile, we caution that long-term experience is limited, which should alert us to any safety issues concerning opportunistic infections and beyond.

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1. Visser F, Wattjes MP, Pouwels PJ, Linssen WH, van Oosten BW. Tumefactive multiple sclerosis lesions under fingolimod treatment. *Neurology* 2012;79:2000–2002.
2. Castrop F, Kowarik MC, Albrecht H, et al. Severe multiple sclerosis: relapse under fingolimod therapy: incident or coincidence. *Neurology* 2012;78:928–930.
3. Jander S, Turowski B, Kieseler BC, Hartung HP. Emerging tumefactive multiple sclerosis after switching therapy from natalizumab to fingolimod. *Mult Scler* 2012;18:1650–1652.
4. Centonze D, Rossi S, Rinaldi F, Gallo P. Severe relapses under fingolimod treatment prescribed after natalizumab. *Neurology* 2012;79:2004–2005.

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#### STROKE IN SUB-SAHARAN AFRICA: AN URGENT CALL FOR PREVENTION

**Larry B. Goldstein, Durham, NC:** In his Global Perspectives article, Dr. Chin<sup>1</sup> reported on the resource constraints related to the provision of stroke

care in Africa. This was based on his experience visiting Mulago Hospital, Uganda's primary tertiary care referral center. He appropriately points out the very limited data related to stroke prevention and treatment in the region, and issued an urgent call for investment in optimizing preventive interventions.

We conducted a case-control study of poststroke hypertension based in Mulago Hospital and found higher than anticipated rates of poor blood pressure control among patients being seen primarily for infectious diseases as well as among poststroke patients. A total of 54.7% of controls with no history of stroke vs 69.4% of poststroke patients had hypertensive-range blood pressures at the time of a research evaluation,  $p = 0.001$ .<sup>2</sup> Knowledge about hypertension and control was particularly poor among younger Ugandans.

Given the economic realities in sub-Saharan Africa, low-cost strategies to reduce the burden of stroke in this area of the world are clearly needed. A coordinated public health program aimed at lowering the prevalence of hypertension—the single most important modifiable stroke risk factor<sup>3</sup>—through education and dietary sodium restriction is a critical first step.

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1. Chin JH. Stroke in sub-Saharan Africa: an urgent call for prevention. *Neurology* 2012;78:1007–1008.
2. Kaddumukasa M, Ddumba E, Duncan P, et al. Poststroke hypertension in Africa. *Stroke* 2012;43:3402–3404.
3. Goldstein LB, Bushnell CD, Adams RJ, et al. Guidelines for the primary prevention of stroke: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke* 2011;42:517–584.

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## Stroke in sub-Saharan Africa: An urgent call for prevention

Larry B. Goldstein

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