A 58-year-old woman developed arthralgias and diffuse headache. Brain MRI with gadolinium revealed unilateral left pachymeningeal enhancement (figure, A) but CSF analysis revealed no evidence of infection or neoplasm. Four months later, she developed mononeuritis multiplex, nasal mucosal crusting, episcleritis, and digital splinter hemorrhages. c-ANCA autoantibody titer was elevated but chest X-ray and the serum creatinine level were normal. Nerve biopsy confirmed necrotizing vasculitis (figure, B and C). All clinical manifestations resolved after cyclophosphamide treatment.

The systemic features of this case are most consistent with Wegener granulomatosis, a necrotizing vasculitis with predilection for small vessels and diverse, often multifocal, neurologic manifestations.1 The meninges receive lateralized vascular supply in parallel with the brain, including extensive branches from the internal carotid and vertebral arteries. The strikingly unilateral nature of the meningitis suggested a vascular etiology.

Figure
Coronal brain MRI and sural nerve biopsy

Hemi-meningitis: A focal sign heralding a multisystem necrotizing vasculitis

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