A 56-year-old woman reported a 2-week history of diplopia associated with mild pain and periorbital edema. On examination, thepatient had a large exotropia (A). While vertical eye movements were intact, there was limited adduction of each eye on right (B) and left(C) gaze. These findings were consistent with wall-eyed bilateral internuclear ophthalmoplegia. Postcontrast axial T1 fat-suppressedmagnetic resonance imaging (D) revealed bilateral enlargement and enhancement of the medial rectus muscles indicative of orbitalmyositis. The patient showed prompt improvement with institution of systemic corticosteroids