Kick and rush

Paradoxical kinesia in Parkinson disease

Figure Images shot during an on-phase with unpredictable freezing of gait

(A) Even with assistance, the patient is unable to walk continuously. (B) By kicking a tennis ball attached to a rubber band (left white arrow), he can dramatically speed up his walking. White arrows indicate the covered distance after 5 seconds.

A 68-year-old enthusiastic soccer player with idiopathic Parkinson disease (PD) had unpredictable, immobilizing freezing of gait, which did not respond even to high doses of dopaminergic medication. By kicking a tennis ball attached to a rubber band, he could reliably overcome freezing (video on the *Neurology*[®] Web site at www.neurology.org).

Paradoxical kinesia is an enigmatic feature observed in advanced stages of PD.¹ A deficit to execute motor sequences can be overcome by external visual or auditory cues.² Enhanced activation of the lateral premotor cortex during paradoxical gait might compensate for the impaired function of supplemental motor area (SMA) and pre-SMA in PD (figure).

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