Teaching Video *NeuroImages*: Spinocerebellar ataxia type 3 presenting with a cock-walk gait phenotype

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Figure Sagittal T1-weighted brain MRI

MRI shows mild cerebellar and brainstem atrophy (white arrows) in a patient with spinocerebellar ataxia type 3 (Machado-Joseph disease) and cock-walk gait.

A 22-year-old woman presented with a 4-year history of progressive gait disturbance and slurred speech. Examination disclosed ataxia, nystagmus, pyramidal signs, bradykinesia, and feet dystonia with a cock-walk gait pattern (video at Neurology.org). There was no weakness of ankle dorsiflexion or plantar flexion. Family history was remarkable for ataxia. MRI showed mild pontocerebellar atrophy (figure). Genetic testing confirmed spinocerebellar ataxia type 3 (SCA3; 34/77 alleles). There were poor responses to levodopa, anticholinergic drugs, and botulinum toxin.

Cock-walk gait is characterized by dystonic foot, with walking on the metatarsophalangeal joints without touching the heels on the ground.¹ Although this is typically related to manism, other diseases with basal ganglia involvement such as SCA3² may present with this phenotype.

AUTHOR CONTRIBUTIONS

Eva Rocha: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval. Thiago Cardoso Vale: drafting/revising the

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DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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Supplemental data
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