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## **Teaching NeurolImages: Pisa syndrome in Parkinson disease**

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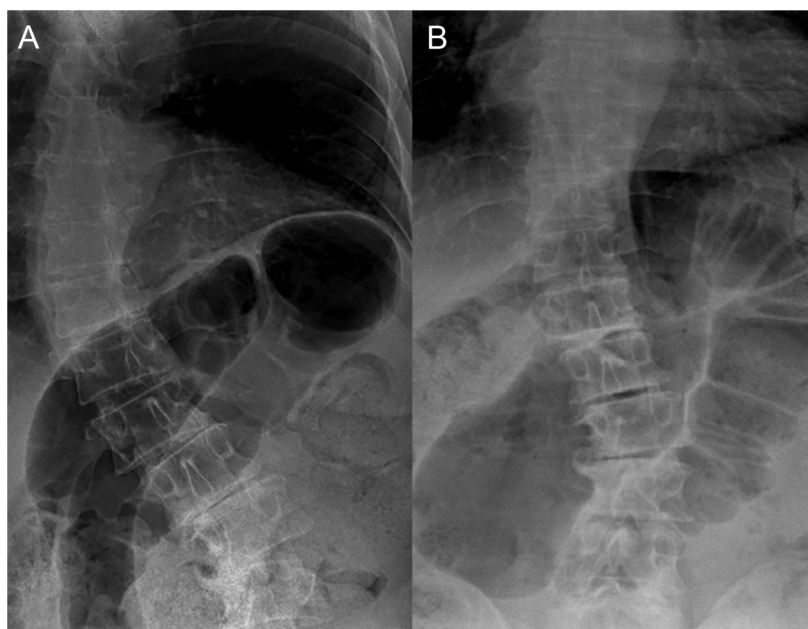


# Teaching *NeuroImages*: Pisa syndrome in Parkinson disease

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**Figure** Spinogram and supine X-ray



(A) Spinogram while standing shows curvature of over 10°. (B) Supine X-ray confirms significant improvement; however, supine films are still abnormal.

A 68-year-old man with Parkinson disease of 5 years' duration treated with levodopa/carbidopa and ropinirole developed progressive lateral postural flexion of the trunk in the last 6 months, despite adequate control of symptoms. A spinogram showed curvature of more than 10°. The patient was diagnosed elsewhere with scoliosis. On examination in supine position, abnormal trunk posture disappeared almost entirely, ruling out fixed bony deformity. Supine X-ray confirmed significant improvement (figure). In this context, Pisa syndrome may correspond to axial dystonia.<sup>1</sup> Scoliosis and Pisa syndrome are not synonymous, as the latter is typically reducible by passive mobilization or when lying down.<sup>2</sup>

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## DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

## REFERENCES

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