OBJECTIVE: The aim of this study was to describe the association between scoliosis and sagittal balance parameters in Parkinson disease patients.

DESIGN: This is a cross-sectional study.

RESULTS: Fifty percent of the cohort presented a scoliosis larger than 11 degrees; 84% of the patients with scoliosis presented a thoracolumbar curve, 10% presented a thoracic one, and 6% presented a lumbar one. The group with scoliosis curves presented a lower spinosacral angle (111.6 [21.9] degrees vs. 121.7 [9.8] degrees, P < 0.05), whereas thoracic kyphosis, lumbar lordosis, and spinopelvic angle were similar. Pelvic incidence, pelvic tilt, and sacral slope were not statistically different. In the scoliosis group, the authors found negative correlations for lumbar lordosis/spinopelvic angle, sacral slope/spinosacral angle, and lumbar lordosis/pelvic tilt. Moreover, the sacral slope/pelvic tilt correlation was positive in patients without scoliosis and negative in others. The two groups did not present differences regarding age, years of disease, Hoehn-Yahr score, and Unified Parkinson Disease Rating Scale-motor section.

CONCLUSIONS: Pelvic parameters were similar in the two groups, whereas spinosacral angle was lower in patients with scoliosis. The prevalence of scoliosis in Parkinson disease was higher than what was previously described and the thoracolumbar spine was the mostly affected.

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