



Supplementary Figure 3. A mediation analysis for UPDRS-III scores in newly diagnosed PD. The natural logarithm of DAT availability in the posterior putamen and FA values in the left fornix were entered as a predictor and mediator, respectively, in the mediation analysis for the UPDRS-III scores. Age, sex, and disease duration were entered as covariates. Paths that were statistically significant are displayed with unstandardized regression coefficients (β) and SE on solid lines, whereas paths that were not statistically significant are presented as dashed lines. We found that the UPDRS-III scores were directly affected by DAT availability in the posterior putamen ($\beta = -7.807, \text{BootSE} = 2.330, p = 0.001$), but the effect of DAT availability in the posterior putamen on the UPDRS-III scores was not indirectly mediated by the FA values of the fornix ($\beta = -0.004, \text{BootSE} = 0.153, p = 0.979$). DAT, dopamine transporter; FA, fractional anisotropy; UPDRS-III, Unified Parkinson's Disease Rating Scale Part III; BootSE, bootstrapping standard error; PD, Parkinson's disease.