Supplement

In order to assess if changes between PET 1 and PET 2, which were not statistically significant in our study, differ from test-retest variability, [^{11}C]DASB test-retest data from a previous study by our group was utilized (Kranz et al., 2015). Test-retest data was available from 8 healthy male controls (for clinical data see (Kranz et al., 2015)) in the caudate, putamen and thalamus. PET data from (Kranz et al., 2015) was analyzed using the same multilinear reference tissue model (MRTM2 (Ichise et al., 2003)) and could therefore be compared.

A mixed model analysis using measurement (PET 1a, PET 2a*), data set (b, c**), and ROI (caudate, putamen, thalamus) as fixed factors, subject as random factor, and [^{11}C]DASB BP_{ND} as dependent variable was performed. No significant three-way interactions (measurement by data set by ROI) or two way interactions (measurement by data set, measurement by ROI or data set by ROI) were detected. The only significant main effect was the effect of ROI ($F_{2,42.90} = 137.19$, $p < 001$).

The fact that no significant measurement by data set interaction was detected demonstrates that the variability within the two PET measurements in the current study does not differ from that between the two PET measurements from (Kranz et al., 2015). Therefore, our results can be interpreted as within test-retest variability.

*PET 1a = Baseline PET (PET 1) from the current study and the first PET (test) from (Kranz et al., 2015), PET 2a = PET after ketamine administration (PET 2) from the current study and the second PET (retest) from (Kranz et al., 2015).

** b = data set from current study (n = 12 healthy males), c = data set from (Kranz et al., 2015) (n = 8 healthy males).

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