

Supplemental material

1. Relationship between changes in FA and clinical variables (symptom severity, antipsychotic medication dose and lithium treatment).

We used a general linear model to assess the relationship between FA values in the right posterior cingulate and scores in the Positive And Negative Symptom Scale (PANSS) total scale ($F=0.007$, $p=0.934$), and the Clinical Global Impression (CGI) scale ($F=0.06$, $p=0.939$), and the dose of antipsychotic medication transformed into chlorpromazine equivalents ($F=3.630$, $p=0.07$). Similar results were found when studying the relationship between FA values in the right parahippocampal region and the PANSS total ($F=0.515$, $p=0.481$) and CGI ($F=2.046$, $p=0.167$) scores, and antipsychotic medication doses transformed into chlorpromazine equivalents ($F=0.049$, $p=0.827$).

Using ANOVA, we examined whether there were differences in FA values in the group of patients with first episode psychosis (FEP) according to whether they were receiving treatment with lithium ($n=8$ receiving lithium vs $n=18$ without). We did not find differences in the FA value in either the posterior cingulate (0.315 ± 0.027 vs. 0.322 ± 0.026 , $F=0.41$, $p=0.53$) or in the parahippocampal regions (0.271 ± 0.007 vs. 0.277 ± 0.024 , $F=0.385$, $p=0.541$).

2. FA group differences on the basis of cannabis use and FEP sub-diagnosis at follow up.

Using ANOVA, we examined possible group differences in DTI measures on the basis of cannabis use and FEP diagnoses at follow-up.

When comparing FEP patients according to cannabis use ($n=10$ with versus $n=16$ without) we did not find any differences in the FA value in either the right posterior cingulate (0.323 ± 0.029 vs. 0.318 ± 0.023 , $F=0.273$, $p=0.6$) or right parahippocampal region (0.269 ± 0.0143 vs. 0.278 ± 0.023 , $F=1.419$, $p=0.245$).

When comparing FEP patients according to diagnoses at follow-up (adolescents with schizophrenia spectrum disorder, $n=16$ vs adolescents with bipolar disorder, $n=10$), no significant differences were found in the FA value in either the right posterior cingulate (0.321 ± 0.027 vs. 0.319 ± 0.025 , $F=0.028$, $p=0.87$) or parahippocampal regions (0.276 ± 0.025 vs. 0.272 ± 0.008 , $F=0.242$, $p=0.627$).