Author's response to reviews

Title: Distribution of tract deficits in schizophrenia

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Dear Editors

We would like to submit this article for publication by BMC Psychiatry. The study investigates brain white matter architecture constraining the spatial progression of schizophrenia.

It is novel in applying a triple analysis method to diffusion tensor images (DTI) from patients with schizophrenia and control subjects. This analysis identified significant white matter tract changes in schizophrenia concentrated in the medial frontal region. Of note, these changes overlapped with a deep frontal white matter zone identified as abnormal in a previous meta-analysis of DTI changes in schizophrenia [1].

In relation to very recent findings from neurodegenerative disorders [2,3], these results identify medial frontal tracts as a potential pathway for anatomical disease progression in schizophrenia.

The findings are important because understanding the neuroanatomy of schizophrenia remains a major challenge in psychiatric research. Diffusion tensor imaging has provided an exciting new method to directly investigate white matter tract changes in the brain and, in particular, theories that schizophrenia is a disorder of anatomical connectivity [4].

By analyzing structural changes in reference to a major white matter atlas, the
paper also provides a reporting standard which we hope will be adopted by other researchers in the future.

Many thanks for your consideration,

Yours sincerely

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References:


