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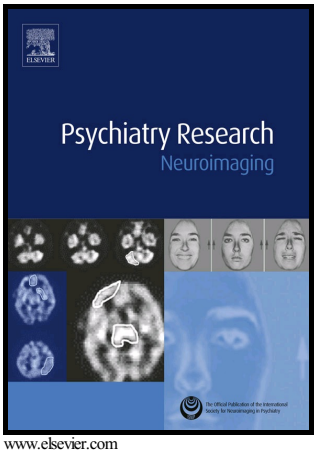

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Reduced white matter connectivity associated with auditory verbal hallucinations in first-episode and chronic schizophrenia: a diffusion tensor imaging study

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Abstract

This study aims to explore whether auditory verbal hallucinations (AVH) in schizophrenia are associated with the white matter abnormalities in tracts connecting language, auditory and memory/limbic networks in first-episode and chronic schizophrenia patients. 21 first-episode (FE-AVH) and 12 chronic (chronic-AVH group) patients who suffered from auditory verbal hallucinations and 26 healthy controls (HC group) were enrolled. Diffusion tensor imaging with tract-based spatial statistics was performed to assess the white matter changes between the two patient groups and HC group. Decreased fractional anisotropy and increased radial diffusivity were found in the patient groups compared to the HC group in multiple white matter tracts including the corpus callosum, superior longitudinal fasciculus, inferior fronto-occipital fasciculus, uncinate fasciculus, cingulum, external capsule and anterior limb of the internal capsule. The chronic-AVH group showed more

[1] Xiaoling Zhang and Jie Gao contributed equally to this work.