

Structural brain changes associated with tardive dyskinesia in schizophrenia

Salvador Sarró, Edith Pomarol-Clotet, Erick J. Canales-Rodríguez, Raymond Salvador, Jesús J. Gomar, Jordi Ortiz-Gil, Ramón Landín-Romero, Fidel Vila-Rodríguez, Josep Blanch and Peter J. McKenna

Supplementary material

Details of the VBM comparison between patients versus controls

Patients showed significant volume reduction compared to controls in three clusters.

One of these was located in the medial prefrontal cortex encompassing the gyrus rectus, the anterior cingulate cortex and parts of medial superior frontal cortex, and extending bilaterally to inferior frontal cortical regions, the dorsolateral prefrontal cortex, and the pre- and postcentral gyri. This cluster also included the insula bilaterally, both temporal poles, the right inferior temporal cortex, the middle and superior temporal cortex bilaterally and the right angular and right inferior and superior parietal cortex. [41554 voxels, peak in BA 11, z score=6.28, MNI (10,36,-14)]. A second cluster was in the bilateral cerebellar hemispheres [6128 voxels, z score=7.17, MNI (-24,-62,-42)]. A third cluster was in the middle cingulate cortex and supplementary motor area [2634 voxels, peak in BA 23/6, z score=5.09 MNI(-6,-12,48)].

The patients showed significantly larger volumes than the controls in two clusters. One was in the cerebellum, also reaching the occipital lobe cortex, lingual gyrus and fusiform gyrus [2585 voxels, z score=3.57 MNI (-20,-88,-22)]. The second was in the brainstem and midbrain and also affected parts of the cerebellum [3833 voxels, z score=6.32, MNI (2,-38,-44)].

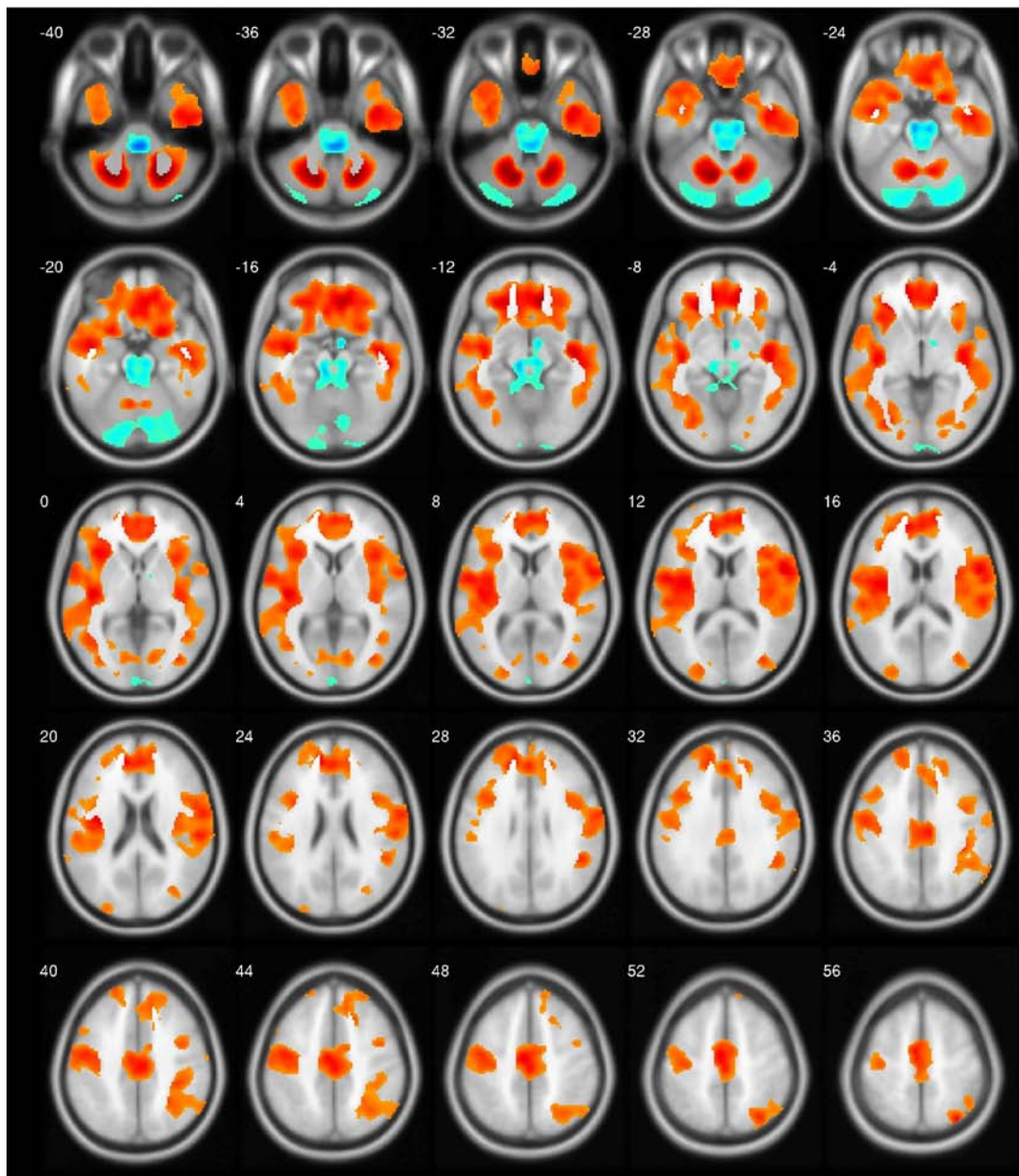


Fig. DS1 Map of clusters of significant difference in the VBM comparison between the controls (N=61) and the whole group of patients with schizophrenia (N=81).

Clusters were significant at $p < 0.05$, corrected for multiple comparisons across space.

Red indicates smaller volume in the patients, blue indicates greater volume in the patients.

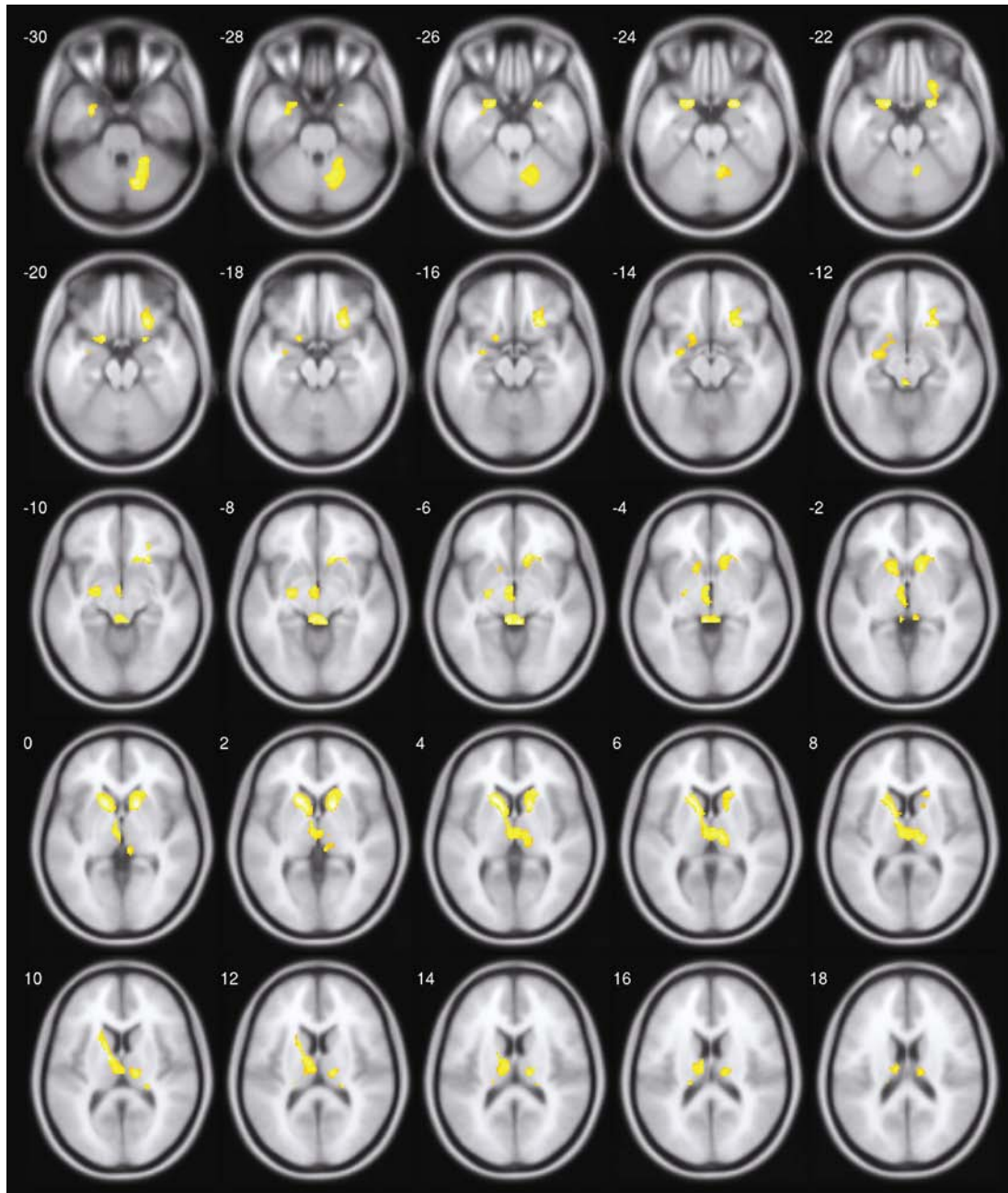


Fig. DS2 More detailed map of clusters of significant VBM difference between patients with TD (N=32) and without TD (N=49). Clusters were significant at $p < 0.05$, corrected for multiple comparisons across space.