Abstract:
Objective: The aim of this study was to examine the pattern of glucose uptake and the changes over time of metabolic deficits in patients with frontotemporal dementia (FTD).
Methods: 10 patients who had received the clinical diagnosis of FTD underwent positron emission tomography scanning at the time of their first examination (baseline) and at follow-up (after 17.1 ± 6.0 months). For statistical analysis, we used the SPM 99 software. First, we compared the data of the patients at baseline with an age-matched healthy control group. Second, we compared glucose uptake at follow-up with baseline measurements. Results: Compared with normal controls, FTD patients showed significant metabolic deficits primarily in frontal cortical areas, but also in the caudate nuclei and the thalami. At follow-up, a significant progression of metabolic deficit was exclusively observed in the orbitofrontal parts of the frontal lobe and in the subcortical structures. Discussion: These findings demonstrate that the clinical progression in patients with FTD is accompanied by a region-specific decline in cerebral glucose metabolism.

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Frontotemporal dementia; Fluoro-2-d eoxy-<italic>D</italic>-glucose-positr on emission tomography; Mini-Mental State Examination; Thalamus; Caudate nucleus; Frontal lobe