Title: Using statistical parametric mapping and $^{18}$FDG PET in patients with auditory hallucinations in clinical practice

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Abstract: This dissertation discusses the clinical usefulness of individualized PET SPM analysis in patients with auditory hallucinations. Metabolic patterns of brain glucose utilization are being compared among four groups of patients: patients with pharmaco-resistant auditory hallucinations, with panic disorder, with social phobia, with obsessive-compulsive disorder and with control group of individuals without a mental disorder. Individualized SPM is performed as subject-versus-control group analysis in each patient. Metabolic patterns are results of evaluation of eight regions of interest. Patients with pharmaco-resistant auditory hallucinations significantly differ from the others in increased utilization of glucose in the right insula. Preliminary results show that individualized PET SPM analysis could be a useful tool for objectification of auditory hallucinations in psychiatry.

Keywords: positron emission tomography, individualized statistical parametric mapping, pharmaco-resistant auditory hallucinations, panic disorder, social phobia, obsessive-compulsive disorder