

Title: Using statistical parametric mapping and ^{18}F 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 pharmacoresistant 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 pharmacoresistant 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, pharmacoresistant auditory hallucinations, panic disorder, social phobia, obsessive-compulsive disorder