memory and attention, both related to hippocampal and cerebellar activity. Overall, further investigation is necessary to determine the various ways of the both drugs performance in the brain.

S54. THE ROLE OF THE CLINICAL PHARMACIST IN DRUG EDUCATION FOR INCREASING COMPLIANCE WITH DRUG THERAPY IN THE PERIOD OF DISCHARGE WITH THE DIAGNOSIS OF SCHIZOPHRENIA SPECTRUM DISORDERS

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Background: The inability to achieve full compliance with drug treatment during the post-discharge period with exacerbations in the illness in patients with schizophrenia and other psychotic disorders is a major problem for the patients themselves, their families, and the healthcare staff in psychiatry.

Methods: In this prospective study, it was aimed to evaluate whether the written and verbal drug education (drug color and shape, interactions, side effects, etc.) given by the clinical pharmacist during the discharge period had an effect on drug compliance. Between 1st September 2016 and 12th June 2017, 40 patients diagnosed with schizophrenia, schizoaffective disorder, schizotypal personality disorder or acute schizophrenia-like psychotic disorder according to ICD-10 diagnostic criteria who were admitted to Hacettepe University Faculty of Medicine, Department of Psychiatry Inpatient Service, were involved in this study. A number of scales were used to evaluate the severity of illness, drug side effects and drug compliance respectively; PANS, UKU, SAS, BARS, AIMS; MARS and ROMI. It has been emphasized during discharge to the patients by the clinical pharmacist that how important administering the prescribed medicines regularly and as directed. Six to 8 weeks after discharge, the patients were invited to be reevaluated using the scales applied during admission.

Results: There was a statistically significant increase in compliance with treatment as quantitatively assessed by the MARS after drug education (p<0.001). There was no significant correlation between compliance and gender, age, tobacco/alcohol use or marital status. At the same time, a significant correlation between severity of akathisia obtained through BARS and a decrease in MARS scores representing the level of compliance was observed (r: -0.367; p<0.05). A decrease in the baseline MARS score was related to an increase in the total number of hospitalizations (r: -0.325; p=0.05) and the number of psychotropic drugs used (r: -0.316; p<0.05). When the factors that may affect compliance were examined by multiple regression analysis, akathisia was found to have the highest impact on compliance (β: -0.389, r²: -0.002, F: 0.750).

Discussion: These results support the literature in terms of the importance of the impact of side effects on compliance. As a result of the study, it was seen that drug counseling services given by clinical pharmacists can effectively be employed in psychiatric care, for the rational use of medicines. It has been seen that drug counseling services given by clinical pharmacists can effectively be employed in psychiatric care, for the rational use of medicines. It has been seen that drug counseling services given by clinical pharmacists can effectively be employed in psychiatric care, for the rational use of medicines.

S55. MECHANISTIC BASIS OF FRONTAL-TEMPORAL TRANSCRANIAL DIRECT CURRENT STIMULATION ON AUDITORY VERBAL HALLUCINATION IN SCHIZOPHRENIA: A MEDIATION ANALYSIS OF COROLLARY DISCHARGE

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Background: Corollary discharge (CD), ubiquitous throughout the animal kingdom, refers to suppression of sensory consequences arising from self-generated actions. Complex motor acts like covert/overt speech are associated with corollary discharge that helps in ascertaining agency. Auditory verbal hallucinations (AVH) are hypothesized to originate due to failure of corollary discharge in auditory processing system. Transcranial Direct Current Stimulation (tDCS), as an add-on treatment, has been reported to significantly reduce severity of persistent AVH in schizophrenia patients. In this study, we describe mediation analysis findings that strongly support a role for amelioration of corollary discharge deficits as a mechanistic basis for tDCS effects on AVH in schizophrenia.

Methods: 27 DSM-IV-TR Schizophrenia patients (SCZ) with persistent AVH despite adequate antipsychotic treatment and 27 healthy controls (HC) underwent neurophysiological assessment for CD. In an event-related potential task, N1 component that reflects cortical responsiveness of auditory cortex to sounds, was elicited and examined in two conditions – i) Talk (with online aural feedback of self-spoken speech sounds) and ii) Listen (passive playback of recorded self-spoken speech sounds). Corollary discharge index (CDI) was calculated by subtracting Listen condition N1 amplitude from Talk condition N1 amplitude (at FCz). Among these 27 patients, 13 patients participated in a randomized, double-blind, sham-controlled study examining the effect of add-on tDCS on AVH and CDI [5 consecutive days, twice-daily, 20-minute sessions; 2mA; anode: left dorsolateral prefrontal cortex; cathode: left temporoparietal junction]. Mediation analysis was modelled with tDCS type (Verum vs. Sham) as independent variable, percent change in auditory hallucination rating scale score (AHRS) as dependent variable and percent change in CDI as the mediator. As recommended for small samples, bootstrap estimation approach with 5000 samples was used to examine the indirect effect of independent variable on dependent variable through proposed mediator for significance.

Results: SCZ (Mean±SD: -0.67 ± 1.93) had significantly deficient CDI than HC (1.36 ± 2.18) (t=3.62; p=0.001). Verum tDCS (32.24 ± 16.48) resulted in greater percentage reduction in AHRS than sham (4.79 ± 8.84) (t=3.64, p=0.004). There was a significant increase in CDI (t=2.48; p=0.03) with verum (0.85 ± 0.18) but not sham (-0.55 ± 0.98) tDCS. Percent change in CDI positively correlated with percent change in AHRS from pre-RCT to post-RCT time-point for the entire sample (N=13; r=0.56, p=0.05). Regression analysis showed that tDCS type (Verum vs. Sham) was a significant predictor of percent change in AHRS (β=-1.40, p=0.033). The predictors of change in AHRS were percent change in CDI (β=0.40, p=0.033) and tDCS type (β=-1.40, p=0.033). The predictors of change in AHRS were percent change in CDI and tDCS type ceased to be a significant predictor of percent change in AHRS (β=-15.0, p=0.063). The predictors accounted for approximately 75% of the variance (R²=0.756, p<0.001). Bootstrap estimation results indicate the coefficient of indirect effect to be significant, β=12.46, SE=6.92, 95% CI=[31.20, -2.79], and significantly different from zero at p<0.05 (two tailed).

Discussion: Fronto-temporal tDCS reduces severity of auditory verbal hallucination in schizophrenia possibly through correction of the deficient corollary discharge. Fronto-temporal network is crucial to tagging possible generation of actions. Complex motor acts like covert/overt speech are associated with corollary discharge that helps in ascertaining agency. Auditory verbal hallucinations (AVH) are hypothesized to originate due to failure of corollary discharge in auditory processing system. Transcranial Direct Current Stimulation (tDCS), as an add-on treatment, has been reported to significantly reduce severity of persistent AVH in schizophrenia patients.
Background: Schizophrenia is a syndrome of variable and highly disruptive psychopathology that infringes emotion, perception, and several aspects of behavior. Relapses caused by noncompliance are common and may lead to hospitalizations. In many ways they increase social disability and health care costs. The project’s philosophy was based on the motivation of the patients to continue their treatment, improve their quality of life, and reduce disease relapses, which in turn reduces public health care costs.

Methods: We enrolled 10 schizophrenia and schizoaffective patients with a poor treatment adherence in a pilot group. All the patients were at the acute psychosis ward. The patient’s average hospitalization days were 180 days/year, and they were highly noncompliant with the open ward treatment accompanied with assertive community treatment model. Seven patients had depot injections and three patients had oral antipsychotic medication. During the hospital treatment the patients started in a group, which continued after the discharge. Weekly group meetings with different activities were organized at the hospital by the ward personnel. The doctor, nurses, a psychologist and an occupational therapist participated the group with different combinations and in a nonhierarchical manner. Psychoeducation was used to increase the knowledge and coping with the disorder. Functional group activities like cooking, arts and visits to different places were organized.

The clinical parameters including the work status, relapse rates and hospitalization days were evaluated at every 6-months during 18 months. For the clinical measurements we used the Brief Psychiatric Rating Scale (BPRS) and 15D Health Related Quality of Life instrument.

Results: At 18 months follow-up, eight of 10 group members had not needed hospitalization at all, one needed hospitalization of 15 days and another 20 days. Both of them were in voluntary treatment. During the pilot stage, two patients got jobs. At five year follow-up, five of 10 initial patients were full-time employed persons. None have needed hospitalization after 18 months.

Discussion: The intensive group focused on noncompliant patients, organized by the hospital ward, where these patients had been recurrently treated, improved substantially the patients’ commitment to the treatment and decreased hospitalizations. The non-hierarchical group operating in the interface of the hospital and open ward was able to cause a significant reduction of general health costs and an improvement in the quality of life of these patients. They were reintegrated into society, and the stigma and marginalization associated with psychoses decreased while the self-esteem improved. The patients were able to create friendships with others in the same situations. They helped one another, and thus also improved their own self-help capacity. These elements prevent social isolation, treatment dropout and functional deterioration, which also would be a risk for increased violence and suicide.

The group meetings began during the hospital treatment, and the patients intensively continued in the familial group after the discharge. However, the goal for these patients is gradually to leave the group and attend other open-ward, occupational and social activities.

Conclusions: Through psycho-educational interventions combined with pharmacological and psychological treatments, Phoenix group, a patient oriented, peer supporting and hospital wall-breaking method obtains results clearly observable that we can warmly recommend.

SS46. A RANDOMIZED CONTROLLED TRIAL COMPARING VIRTUAL REALITY THERAPY TO COGNITIVE BEHAVIORAL THERAPY IN SCHIZOPHRENIA WITH TREATMENT REFRactory HALLUCINATIONS: PRELIMINARY RESULTS
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Background: Poor treatment adherence is a key target for improving satisfaction is to keep antipsychotic drug treatment at the lowest effective doses, as most side effects are dose-related. Our findings suggest that reducing positive symptoms and side effects are important, but not solely sufficient to enhance patient satisfaction, and that differences exist among drug naïve and previously medicated patients. Improving insight and reducing depression are key processes to enhance satisfaction, particularly for antipsychotic naïve patients. Being drug naïve may be considered a proxy for First Episode Psychosis (FEP). Symptoms of depression seem to be particularly prevalent in FEP patients (1), and might dominate the experienced distress relative to symptoms of psychosis in these patients. Furthermore, FEP patients are more sensitive to the side effects of antipsychotic drugs. Another key target for improving satisfaction is to keep antipsychotic drug treatment at the lowest effective doses, as most side effects are dose-related.

References