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**TRANSCRANIAL DIRECT-CURRENT STIMULATION (TDCS) IN PATIENTS WITH SCHIZOPHRENIA**

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**Introduction:**

Some 25%–30% of patients with schizophrenia have auditory verbal hallucinations that are refractory to antipsychotic drugs. transcranial direct-current stimulation (tDCS) is a novel somatic treatment proposed for hallucinations and negative symptoms (Brunelin et al. 2012).

**Objectives/Aims:**

We aimed to assess the efficacy of tDCS in reducing the severity of auditory verbal hallucinations as well as negative symptoms in patients with schizophrenia.

**Methods:**

Six patients (aged 41–66 year) with schizophrenia and medication-refractory auditory verbal hallucinations were enrolled. Positive and Negative Syndrome Scale (PANSS) and Cardiff Anomalous Perceptions Scale (CAPS) were administered as outcome measure, before (T0) and after tDCS (T1), to assess treatment response. tDCS delivered by a HDCstim (Newronika, Milano, Italy) (2mA, twenty minutes, twice a day for 5 consecutive days) with the anodal electrode over the left dorsolateral prefrontal cortex and cathodal electrode on the left temporo parietal cortex.

**Results:**

The patients tolerated well the procedure and there was no side effect. After tDCS auditory verbal hallucinations improved by 33% in frequency (T0 vs T1  $p=0.03$ ) and by 40% in distress (T0 vs T1  $p=0.02$ ), for up to one month. Negative symptoms as measured by the PANSS also decreased by 24% (T0 vs T1,  $p=0.02$ ).

**Conclusion:**

The results of this small, open tDCS trial prompt the further studies with controlled, double blind design in a larger sample size of schizophrenic patients. Nonetheless, our findings are in line with available data reporting a beneficial effects of tDCS in schizophrenia (Brunelin et al. 2012).