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Extended maintenance electroconvulsive therapy for more than 9 years

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Maintenance electroconvulsive therapy (M-ECT) has been increasingly used to prevent relapse in patients with major psychiatric disorders. However, little is known about the long-term benefits and risks of M-ECT.

We report on a patient with recurrent episodes of depression with psychotic features who has been successfully treated with M-ECT for 9 years.

Case-report: An 83-year old female patient was first admitted to our department at the age of 72 years, after a suicide attempt. She was diagnosed as having psychotic depression and received antidepressive medication with moderate effect. Relapses were multiple despite continuation medication. The failure of administered antidepressive medication to prevent relapse, necessitated the use of index, continuation and eventually maintenance ECT. The additional parallel use of mood stabilisers (lithium and lamotrigine) allowed us to lower the frequency of M-ECT. Attempts to discontinue M-ECT led to relapse and M-ECT is now seen as a life-long treatment for that patient. To date (2007) our patient has received 450 treatments. Her depression remains in remission over the last years. Despite the unusual large number of administered ECT, her memory function appears to be unimpaired and repeated assessments with the MMSE test have not revealed cognitive deterioration.

Discussion: For some patients long-term M-ECT is the only effective treatment to prevent relapse in depression. The risks of long-term M-ECT, especially regarding its possible adverse effects on cognition, are still under research.

Our case-report provides support for the safety of expanded M-ECT which, in some cases, can be seen as a life-long treatment.

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Electrophysiological effect of low-frequency rTMS in schizophrenic patients with auditory hallucinations

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Background and Aims: Number of previous studies reported that low-frequency repetitive transcranial magnetic stimulation (rTMS) diminishes treatment-resistant auditory hallucinations. However, little is known about the electrophysiological effect on regional functional activity subsequent to the rTMS treatment.

Methods: Eighteen schizophrenic patients with antipsychotic-resistant auditory hallucinations were randomized to either active (n=9) or sham (n=9) rTMS. Low-frequency rTMS (0.9Hz, 100% MP, 1200 stimuli per session) was administered over the left temporo-parietal region for ten days. In case of sham rTMS a coil was tilted at 90°. EEG data were recorded within three days before and after rTMS treatment. The localization of the differences in electrical activity (current density) was assessed by voxel-by-voxel paired t-tests of the LORETA (low resolution brain electromagnetic tomography) images. The clinical effect was assessed by the Positive and Negative Syndrome Scale (PANSS), Hallucination Change Scale

(HCS) and the Auditory Hallucination Rating Scale (AHRS) by a rater blind to the treatment condition.

Results: After two weeks of treatment, both HCS and AHRS scores were significantly improved for patients receiving active rTMS compared to the sham group. LORETA analysis revealed a decrease of current densities in high-frequency bands (alpha 2, beta 1 and beta 2) in the left frontal, temporal and parietal lobes in case of active group. No significant differences in electrical activity were observed in sham group.

Conclusions: Real rTMS but not sham stimulation attenuated an auditory hallucinations and was associated with a decrease of activity in high-frequency bands on the left hemisphere.

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Use of electroconvulsive therapy at a University Hospital in Lisbon, Portugal: A 5-year naturalistic review

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Background and Aims: Electroconvulsive therapy (ECT) is a safe and effective treatment for severe and persistent depression, bipolar disorder and schizophrenia. The authors pretend to describe their experience and evaluate the efficacy of the technique on clinical practice.

Methods: We present our experience of ECT use at a University Hospital in Lisbon, Portugal, over the course of 5 years, thought a naturalistic review.

Results: During the study period, 81 patients received ECT. ECT was conducted under the supervision of consultant psychiatrist and anaesthetist with continuous monitoring during and after the procedure. Bitemporal electrode placement was used twice or thrice weekly. Most commonly used sleep induction agents were thiopental and propofol. The average number of ECTs administered per patient was 8. Patients who received ECT were diagnosed unipolar major depression (49.4%), bipolar disorder (29.6%), schizophrenia (19.8%) and schizoaffective disorder (1.2%). Mean age of patients who received ECT were 44 years, in a great range between 16 and 81 years-old. The majority was female (65.4%). Almost all patients showed improvement in their clinical condition (90%). The most frequent complication was bradycardia followed by hypertension. No major complication was observed in any of the patients. Thirty-three percent of patients repeat the ECT along those 5 years. When support ECT started to be realized, recurrence decreased.

Conclusions: Our study demonstrates the effectiveness of ECT. We strongly recommend following guidelines to ensure patient safety and minimizing side effects. This will ensure better patient acceptability and compliance.

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Electroconvulsivotherapy in the elderly, indications, risks and side-effects

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Introduction: Major depression is one of the most prevalent diagnoses in the elderly and represents an important cause of morbidity and mortality in this group. There exists evidence that electroconvulsive therapy (ECT) is particularly efficient and safe in the elderly patient.