

mECT, $p = 0.055$. This was maintained once mECT was stopped. This compared well with comparison group who went on to receive other maintenance therapy (for the same period to control for secular changes), where both admission rates and bed occupancy went up. The change in duration of hospital stay between the two groups were statistically very significant ($p < 0.001$) in favour of the mECT group.

Conclusion: The findings suggest that mECT may have a role in reducing the rate and duration of hospital stay of patients with major depressive disorder. The main weaknesses are the small sample size. This may translate in to socio-economic benefits both for the patients and the health services.

P0315

ECT in the elderly with catatonic schizophrenic disorder-A case report

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Case history: a 69 year old man with drug resistant catatonic schizophrenic disorder was treated at the psychiatric clinic of a general hospital with courses of ECT. In the past he had also responded positively to the same treatment.

Course of the treatment: patient was admitted because of catatonic symptoms such as immobility, mutism and negativism. During his two hospitalizations, a total of 48 ECT sessions was given with encouraging results. Namely after the first hospitalization the patient left the hospital in excellent condition, where as in the second occasion results were fair.

Treatment: ECT is one of the first somatic therapies in the history of psychiatry. In 1938 Cerletti and Bini administered the first successful treatment of schizophrenia inducing epileptic seizures via electricity. Today ECT is given under general anaesthesia including muscles relaxation, in organized hospital units and thus it is a safe and well tolerated therapy.

Conclusion: our case report confirms the fact that in elderly ECT seems to have good results and few side effects.

P0316

Electroconvulsive therapy at a county hospital between 1993 and 2003: ECT- parameters, side effects and outcome

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Background and Aims: This study is a retrospective analysis of the clinical use of ECT at a county hospital in Norway. Our aim was to determine the ECT- parameters, effect and side effects of patients that received ECT and compare standards of ECT practice with similar studies conducted elsewhere.

Methods: The study is based on data collected from specific ECT journals and the patients' hospital journals. We investigated treatment

characteristics, side effects (headache, memory problems and others), and effect which was measured as either present or not present. The number of necessary sessions before effect was achieved was also registered.

Results: 210 patients received ECT in the study period. The mean number of ECT treatments was 7.9. Bilateral electrode placement was used for 63.3%. The analyses suggest that a unilateral placing of electrodes tended to increase the average number of treatments compared to the bilateral placing of electrodes. The level of energy compared to the placement of electrodes seemed to indicate that unilateral treated received higher energy than those who had the bilateral placing of electrodes. We found that high stimulus dosage required shorter cramps. Common side effects included headache (N=86), retrograde amnesia (N=31) and others (N=17), no side effects (N=28), missing data (N=65).

82.2% of patients improved with treatment, 51.1% experienced improvement between treatment 4 and 7, 17.8% patients did not respond to the treatment, missing data 35.7%.

Conclusions: Our findings are mainly in concordance with previous reports of ECT use in public funded hospitals.

P0317

Stereotactic neuronavigation of rTMS in the treatment of auditory hallucinations: A pilot study

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Objectives: It was repeatedly reported that low frequency rTMS diminishes treatment-resistant auditory hallucinations. The main drawback to rTMS in general, so far has been the impossibility of precise targeting of the rTMS coil at the given cortical area. Stereotactic neuronavigation is a unique technology utilising the ability of aiming the coil with a high degree of anatomic accuracy based on an evaluation of the structural or functional neuroimaging of the brain.

Aim: To prove the clinical effect of using rTMS neuronavigation in the therapy of treatment-resistant auditory hallucinations

Methods: Seventeen schizophrenic patients with predominantly symptoms of treatment-resistant auditory hallucinations were treated.

Using double-blind sham-controlled parallel design, we evaluated the effect rTMS neuronavigation focused over the left temporo-parietal area, direct to the place with the highest metabolic activity (SPM II analysed PET contrast).

Parameter settings were: 0.9Hz, MT 100%, 1080 pulses/session, 10 sessions, duration: 20 minutes per session.

Clinical effect was assessed using PANNS, AHRS and HCS.

Results: We found a significant improvement in the total on scales of HCS and AHRS, representing more than 30% reduction of the symptoms after neuronavigated rTMS. Sham rTMS did not showed a trend for improvement over time. No side effects during rTMS were observed.

Conclusions: Our study shows the acute effect of rTMS neuronavigation in the therapy of auditory hallucinations in schizophrenia. We believe that using neuronavigation and respecting an individual brain parameters and metabolic changes, we can evaluate higher efficiency of the rTMS method.

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P0318

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.

P0319

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.

P0320

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.

P0321

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.