

## Poster Session II: ECT/ TMS

### P0311

Interest of TMS treatment in resistant depressed patient with Parkinson's disease: A case report

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Repetitive transcranial magnetic stimulation treatment (rTMS) in elderly depressed subjects (> 60 years) deserves to be assessed, in view of the absence of severe side effects. But most of the results in the literature have been negative probably due to a too short duration of rTMS treatment in this particular population. We report the case of a 71 years resistant depressed old man with a Parkinson's disease treated by rTMS (LDLPFC, 10 Hz, 1600 pulses, 80% MT) over a 2 years period: one month of curative treatment (five sessions a week) followed by 23 months of maintenance sessions (one a week). The results show a significant drop in HDRS scores after one month of rTMS: 26 at baseline versus 10 at M1, 7 at M6 maintained at M24. Therapeutic efficacy and absence of cognitive effects are strong arguments in favour of rTMS treatment in resistant depressed patient with parkinson's disease. Moreover, rTMS could be useful to avoid aggravating the polymedication in this multitreaded population. Double blind studies are needed to confirm the interest of rTMS in this population.

### P0312

Application of electroconvulsive therapy in a psychiatric ward

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We have studied electroconvulsive therapy application in a 24 patient psychiatric ward during the period between 2000 and 2007.

In our sample, consistent on 70 electroconvulsive cycles applied in 53 patients applications, the measured variables were: gender, age, diagnosis, previous processes, previous administration of ECT, duration of the present episode, previous treatment before ECT including drugs used and treatment compliance, average number of ECT applications, response to the administration, treatment at discharge and evidence of the appearance of subsequent psychoorganic deficit.

Average age of patients treated with ECT was 55, 81 years, being mostly women (67, 14%). Diagnosis in our sample were melancholy, psychotic or non psychotic (41, 42%), and manic depressive psychosis or schizoaffective psychosis, most frequently in a depressive episode, although also during manic or mixed episodes. Schizophrenic psychosis only takes up a discreet percentage of the sample (11, 42%).

Average of applied sessions was 5, 52 sessions per patient, obtaining very successful results in most cases (92, 86 %). Globally, the ECT was well tolerated specially in those cases in which the process that justified ECT were not associated to previous persistent intellectual deficit. From these patients just five of them had post-ECT administration confusional symptoms. We found manic symptoms in five cases.

Electroconvulsive therapy was administrated as prophylactic intervention in several melancholic patients and as maintenance therapy.

### P0313

The treatment of depression with somatic pain

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**Background:** One of the partial solved issues in the treatment of depression is somatic pain. Most antidepressants can reduce the intensity of affective symptoms, but somatic pain, if present, is unfortunately, the last which disappears.

**Aim:** to estimate the clinical efficacy of SSRI (paroxetine) compared to venlafaxine XR, a dual action antidepressant, in patients with Major Depressive Disorder (MDD) and somatic pain.

**Methods:** Clinical open study including 48 patients (28-56 years), both sexes, with MDD (DSM-IV), mean scores MADRS=28 and somatic pains at baseline (at least 1 symptom moderate-severe)

**Instruments:** MADRS, Depression Checklist (developed by University of Michigan Depression Center), CGI-Severity, CGI-Improvement, side effects, somatic conditions and relapse (follow-up: 6 month).

**Results:** The patients were divided in 2 groups: Group A: paroxetine (40mg/day), 23 patients; Group B: venlafaxine XR (225mg/day), 25 patients. After 8 weeks: responders in Group A=56%, in Group B= 59%; partial responders: Group A=21% and Group B=15%, non-responsive: Group A=12% and Group B=11%. Drop-outs: Group A=11% and Group B= 15%. Somatic symptoms: 36% of the Group A patients and 28% of the Group B presented at least 1 somatic symptom with moderate to severe intensity. The 6 month follow-up period we evaluated the relapses in all groups and the outcome of the somatic symptoms.

#### Conclusions:

1. In MDD patients both paroxetine and venlafaxine XR demonstrated a good therapeutic effect.
2. The somatic symptoms were less influenced by both antidepressants, till the end of the study.
3. The group B was more responsive to these important aspects.

### P0314

Efficacy of maintenance ECT- a naturalistic retrospective study

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**Background and Aim:** It has been suggested that mECT reduce relapse rates in chronic/recurrent depression. We aimed to study its efficacy in this group.

**Method:** A retrospective analysis of 19 patients who received mECT following a successful course of acute ECT. We compared admission rates and bed occupancy during the mECT period with periods of 2-4 years before and after mECT. Information was gathered from case-notes and hospital records. This group was then compared with a similarly matched group, who received a successful index aECT followed by other non-ECT maintenance therapies to compare for secular trends.

**Results:** 19 patients - average age 70.6 (44-88) received mECT (ave. 37 (12-89) applications, mean interval-2.5 weeks). Admission rate fell from 1.02 admission/year to 0.316 (p < 0.001) and acute in-patient stay from 15.24 weeks/year pre-mECT to 7.05 during

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 puses/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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