

basis and outcome determined with the Hamilton Rating Scale for Depression and the Global Assessment of Function scale.

**Results:** There were no differences in the six-month relapse rate between two groups. 25% of the patients in either group relapsed.

**Conclusions:** Patients treated with rTMS do as well as those treated with ECT at the six-month follow-up point. Our data suggests the clinical gains obtained with rTMS are long lasting.

- (1) Pascual-Leone A, Rubio B et al (1996), Safety of rTMS of LDLPF cortex in drug-resistant depression. *Lancet* 348: 233–237.
- (2) George MS, Lisanby SH, Sackeim HA (1999), TMS applications in psychiatry. *Archives of General Psychiatry* 56: 300–311.

### P02.343

ELECTROCONVULSIVE THERAPY IS EFFECTIVE IN THE TREATMENT OF PATIENTS WHO FAILED TO RESPOND TO A COURSE OF REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION

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**Background:** Transcranial Magnetic Stimulation (TMS) has been proposed as a potential substitute of Electroconvulsive therapy (ECT) in severely depressed individuals. In this naturalistic study we report on the outcome of TMS resistant patients who were subsequently treated with ECT.

**Methods:** Fifteen rTMS non-responders patients were treated with ECT. Eleven of them suffered from MDD with psychotic features and four of them suffered from non-psychotic MDD. All the patients were assessed with the Hamilton Rating Scale for Depression (HRSD), the Brief Psychiatric Rating Scale (BPRS), the Global Assessment of Function Scale (GAS) and the Pittsburgh Sleep Quality Index (PSQI). Response to treatment was defined as at least a 50% decrease in the final HDRS score and a final GAS higher than 60.

**Results:** Six out of eleven psychotic patients and two out of four nonpsychotic patients responded to ECT. HRSD ( $p < 0.04$ ,  $t: -3.1$ ), GAS ( $p < 0.08$ ,  $t: 2.4$ ) and PSQI ( $p < 0.06$ ,  $t: -2.9$ ) scores changed significantly with ECT.

**Conclusions:** In this group of resistant patients ECT improved an important proportion of them. Although we did not have a comparison group of patients treated initially with ECT, it appears that the response rate to ECT of this sample was lower than that reported in other studies of ECT in depression

### P02.344

REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION IS EFFECTIVE AS THE FIRST TIME IN THE TREATMENT OF RELAPSE OF DEPRESSION

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**Objective:** The aim of the study is to demonstrate the efficacy and the safeness of repeated repetitive transcranial magnetic stimulation (rTMS) in the treatment of relapse of depression.

**Method:** Five patients who were treated successfully with rTMS relapsed and received a second rTMS course. TMS was performed with MAGSTIM rapid equipment delivering 90% power of the motor threshold. The stimulation frequency was 10 HZ for 6 sec for 20 trains. Patients treated 20 treatment days. Clinical assessments were performed with the Hamilton Rating Scale for Depression

and the Global Assessment of Functioning scales at baseline, at week two, and at the end of the treatment.

**Results:** No significant differences found between the rating scales at the end of the treatment courses. There were no side effects due to rTMS treatment.

**Conclusions:** The second rTMS course was effective and safe as the first course.

- (1) Belmaker RH (1995), TMS-a potential new frontier in psychiatry, *Biological Psychiatry* 38: 419–421.
- (2) Grunhaus L, Dannon PN et al (in press) rTMS effective as ECT in the treatment of non-delusional MDD, *Biological Psychiatry*.

### P02.345

LITERACY RATE, GROSS DOMESTIC PRODUCT AND SUICIDE RATE IN 33 EUROPEAN COUNTRIES

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We present a study of the associations between suicide and literacy rates for both male and female populations in 33 European countries where data for both rates are available. For both sexes, high literacy rates significantly predict high suicide rates even when controlling for gross domestic product – purchasing power parity (GDP) and age distribution. It is suggested that literacy rates may represent an important ecological risk factor for completed suicides. Two potential mechanisms for negative impact of high literacy rates can be made; the first is that high literacy leads to a better understanding of impoverished social circumstances. Indeed, when the GDP per capita is added to the linear regression model, the latter improves considerably. The second potential mechanism is that more literate individuals move more rapidly from simple pessimistic views towards hopelessness and suicidal ideation. On the other hand, it is also possible that literacy is just a confounding variable. For example, suicide statistics might be more reliable in countries with higher levels of literacy. Nevertheless, the striking finding that literacy and suicide rates are associated is worthy of further investigation.

### P02.346

CORRELATION BETWEEN SUICIDE RISK, TIME SPENT IN PRISON AND VULNERABILITY PROFILE OF PEOPLE IN CONFINEMENT

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Previous studies have identified correlations between suicide and time spent in prison. The results however were contradictory. It was criticised that naive statistical approaches do not adequately account for the vulnerability profile of prisoners. To evaluate the suicide risk in prison a study was conducted using the case notes of all suicides ( $n = 247$ ) having occurred in Austrian prisons between 1975 and 1999. The suicide risk factors associated with different circumstances (sentenced prisoners, prisoners on remand, length of custody, length of fine) were studied.

**Method:** The hazard was calculated, which reflects the suicide risk for the individual within a defined period of custody, using the Nelson-Aalen-estimator.

**Results:** With the help of the calculated hazard we assume three different time periods of high suicide risk, and describe three vulnerability profiles of prisoners within the specific periods.

**Conclusion:** Sophisticated statistical methods help to estimate high risk periods. Thereof it is possible to derive specific vulnerability profiles for prisoners at high suicide risk. We assume that with this knowledge suicide prevention programs in prisons and jails could be made more effective and economic.

### P02.347

#### DEPRIVATION VERSUS IMPORTATION: A MODEL EXPLAINING THE INCREASE OF SUICIDE RATES IN CUSTODY

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High suicide rates in jail or prison settings have given rise to a debate about whether suicides result chiefly from the type of people confined, or from the types of places they are confined in, the types of confinement. This is summarily framed by the terms of an associated debate in criminology, between importation and deprivation theory. We investigated the importation versus deprivation theory concerning the circumstances in Austrian prisons and jails. We report on all completed suicides over the period from 1947 to 1999 (n = 410). For perspective we investigated a change of suicide rates and tried to clarify whether importation or deprivation parameters might be responsible for this change.

**Method:** We calculated the time dependent suicide rate/100 000 and per year using a Poisson-regression-model and defining different dummy-variables.

**Results:** The only dummy-variable which was significant was the year 1975 (p < 0.001). That means that between 1947 and 1975 we have a stable suicide rate, from 1975 on the suicide rate increases steadily and significantly. As 1975 there was an important legislative reform of the criminal law in Austria, we can derive that the implications of that reform reflect the change of importation and deprivation parameters (e.g. importation - increase of mentally disordered offenders; deprivation - increased use of single-cells).

### P02.348

#### PSYCHOPATHOLOGY IN PATIENTS WITH TREATED WILSON'S DISEASE

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**Background to Study:** The point prevalence of psychopathological symptoms and the global functioning in a series of Swedish patients with treated Wilson's disease (WD) have been investigated.

**Design of Studied:** There were 26 patients, 10 females and 16 males, with confirmed WD, with a mean age of 34.7 ± 8.5 years and a mean duration of disease 17.4 ± 8.3 years. These patients were investigated using a semi-structured interview, i.e. the Comprehensive Psychopathological Rating Scale (CPRS), the CPRS Self-rating Scale for Affective Syndromes (CPRS-S-A), the Mini-Mental State Examination (MMSE) and the Global Assessment of Functioning (GAF).

**Results:** The total CPRS scores ranged from 2.5 to 59.0 (mean 29.4 ± 15.5). Most common symptoms were: Autonomic disturbances, Muscular tension, Fatiguability, Reduced sexual interest, Lack of appropriate emotion, Concentration difficulties, Reduced sleep, Aches and pains, Hostile feeling, Apparent sadness and Failing memory. Agreement between interview-based ratings and self-ratings was low, only three items had Spearman's rank correlations above 0.70. The distribution of MMSE scores ranged from 27 to 30 (mean 29.5 ± 1.0) and the distribution of GAF scores ranged from 35 to 90 (mean 68.8 ± 11.9) for the year preceding the examination.

**Conclusions:** These results suggest that the patients with treated WD have prominent psychopathology and the typical symptom profile might be identified.

### P02.349

#### WHAT ARE THE SKILLS REQUIRED FOR GENERAL PRACTICE AND PAEDIATRICS AS FAR AS THE PSYCHOPATHOLOGY OF CHILDREN AND ADOLESCENTS IS CONCERNED?

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The object of this work is to propose a better match between initial training of future doctors in paedopsychiatry (during the 2nd and 3rd years of medical studies) and general practice. To achieve this, it seems to us to be necessary to be able to respond to the following four objectives:

- the drawing up of an inventory of the psychopathological problems faced by general practitioners,
- record the practises developed by doctors in relation to these problems,
- compare this data with that of independent and hospital based paedopsychiatrists,
- deduce from this the skills to be developed.

**Methods:** A group was formed, made up of six GPs, six paediatricians, six independent paedopsychiatrists and six hospital paedopsychiatrists. They met for a full day of work which enabled an inventory to be drawn up of the clinical situations faced by each profession.

A questionnaire, developed by a professor of child psychiatry, a professor of medicine and a general practice intern was completed during the GPs and paediatricians consultations. The data, collected by these two methods, was then compared to the data drawn from the literature.

**Results:** The GPs diagnosed a psychopathological problem once or twice a month, the paediatricians two or three times per week. This is a long way from the prevalence of psychopathological problems, which is estimated at 10%. One of the first objectives, therefore, is to improve the ability of doctors (GPs and paediatricians) to identify these problems. Then we made a list of the clinical most frequent problems faced by GPs and paediatricians, and we listed their roles.

### P02.350

#### THE ASSESSMENT AND TREATMENT TEAM: A NEW APPROACH TO MENTAL HEALTH SERVICES IN COVENTRY

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The Assessment and Treatment Team (A&TT) was set up in April 2000 to offer the main point of entry to mental health services