

NR15. Bereavement; Biological and treatment issues in affective disorders — I

Chairmen: G Stein, D Raven

THE MELBOURNE FAMILY GRIEF STUDY: PERCEPTIONS OF FAMILY FUNCTIONING IN BEREAVEMENT

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Objective: Our aim was to identify patterns of family functioning in the adult family following the death of a parent.

Method: 115 families (670 individual responses) assessed at 6 weeks (T1), 6 (T2) and 13 (T3) months after the death of a parent completed measures of family functioning, grief, psychological state and social adjustment. Cluster analytic methods were applied to develop a typology of perceptions of family functioning during bereavement.

Results: Five classes emerged using dimensions of cohesiveness, conflict and expressiveness from the Family Environment Scale (FES). One third of families were named *supportive* for their high cohesion; a quarter *resolved conflict* effectively. Two classes were dysfunctional: *hostile* families were distinguished by high conflict, low cohesion and poor expressiveness, while *sullen* families had more moderate limitations in these three areas; they declined in frequency from 30% at T1 to 15% at T3. The remaining class, termed *intermediate* (one fifth), exhibited midrange cohesiveness, low control (FES) and low achievement orientation (FES). The typology at T1 predicted those at T2 & T3. There were no age or gender differences, but offspring were over-represented in the hostile cluster.

Conclusion: Family types can be identified enabling at risk families to be helped to prevent complications of grief. Screening with the Family Relationship Index (FES) would facilitate such a family-centered approach.

TRANSCRANIAL MAGNETIC STIMULATION A NEW THERAPEUTIC APPROACH TO THE TREATMENT OF DEPRESSIVE ILLNESS

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Transcranial magnetic stimulation (TMS) is a well established diagnostic probe in neurological practice. The increasing knowledge of biological mechanisms in electroconvulsive therapy (ECT) made an obvious case to study the applicability of TMS as a therapeutic tool in psychiatric conditions. (George 1994, Zyss 1994).

Based on the results of our pilot study (Koppi et al 1996) showing a possible antidepressive effect of TMS, we conducted a controlled clinical trial on patients affected by major depression (DSM III R), undergoing TMS as an add on Therapy to standardized antidepressive medication. We compared randomising 2 groups: group 1 (n = 12) was treated with TMS and antidepressants, while group 2 (n = 12) underwent only antidepressive medication.

The groups were comparable in demographic data, course and duration of index episode and diagnostic criteria for major depression. TMS was applied over a period of ten days daily in the morning.

Precentral, prefrontal, temporal and parietal regions were stimulated bilaterally with a max. of 1.9 Tesla. The onset of treatment unresponsivity was measured by HRS-D 21. Already after the third ad on TMS session a statistically relevant remission of depressive symptoms occurred in the patients of group 1 (p = 0.003). This statistical difference between the groups becomes even more evident on the last day of the study p = 0.001 (Wicoxon).

These results confirm the hypothesis, that TMS probably works even as an antidepressive therapeutic tool. Further the TMS doesn't show marked or even serious side effects.

ELECTROPHYSIOLOGICAL CORRELATES OF IMPAIRMENT OF IMAGINABILITY IN DEPRESSIVE PATIENTS

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Research has shown depressive individuals to be impaired at various stages of cognitive information processing, but most mechanisms of these deficits are still not clear. Concerning recognition memory, impairment could be related to changes of working memory capacity itself or to changes of other kinds of processes facilitating these types of memory or recognition processes. Thus, it is well known that emotional processing, learning and retrieval strategies or other stimulus-related factors like the semantic or emotional content of a stimulus, as well as the extent of abstraction or imaginability related to the stimuli, may influence memory performance. To investigate the influence of imaginability of words on recognition processes and the factors of recognition memory impairment in depressive patients, we made use of an Event-Related Potential (ERP)-paradigm. In this type of continuous word recognition experiment brain responses to repeated items which are successfully recognized are characterized by more positive waveforms of the ERPs.

In the present experiment, words were classified according to their imaginability ("high", e.g. rose; "low", e.g. future) and were presented visually with some words being repeated. The subjects had to decide whether a given item had been presented for the first time ("new" word) or the second time ("old" word). The ERPs for the correctly detected "old" words showed an increased positivity beginning approximately 250 ms post stimulus. This "old/new-effect" (e.g., Rugg et al. 1995) was sensitive to the different word imaginability in the normal controls (the high imaginability words showed a pronounced old/new-difference), but the non-medicated depressive patients (DSM-III-R:296.2X and 296.3X; HAMD-score: 17-24; n = 12) appeared to show a much smaller old/new-effect and no significant difference between the "high" and "low" imaginability words. These findings support the hypothesis that depressive patients show an impairment of imaginability of words which influences recognition processes.

TIME TO REMISSION IN MAJOR DEPRESSION. IS THERE A LINK BETWEEN 'NO-TREATMENT INTERVAL' AND OUTCOME?

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The literature on the prediction of the course of depression has suggested several variables which influence outcome. These include duration and severity of the index episode, number of previous episodes of illness, family history of affective illness, number of negative life events and level of premorbid neuroticism. More recently it has been proposed that the interval between onset of episode and the