

SEROTONIN 1A, 2A AND 1D mRNAs IN HUMAN BRAIN POSTMORTEM: A COMPARATIVE STUDY BY MEANS OF IN SITU HYBRIDIZATION

M. Pasqualetti, I. Nardi, G.B. Cassano, D. Marazziti. *Institute of Psychiatry and Institute of Cellular and Developmental Biology, University of Pisa, via Roma 67, I-56100 Pisa, Italy*

The distribution of messenger RNAs (mRNAs) for serotonin (5-HT) receptors of 1A, 2A and 1D α type (5HT_{1A}, 5HT_{2A}, and 5HT_{1D α}) was examined and compared in autaptic human brain by means of in situ hybridization using cRNA probes, in those areas that have been reported to present the highest density of the receptors with binding techniques. The results showed that 5HT_{1A} receptor was abundantly expressed in the layers II–VI of all cortical areas under examination. In the hippocampus, it was expressed in the granular cells of the dentate gyrus and in the layer of the pyramidal cells of the Hammon's horn. The 5HT_{2A} receptor, too, was present in all cortical areas in the layers III–V, while in the hippocampus it was restricted to the CA1 field of the Hammon's horn. No expression of both the 5HT_{1A} and 5HT_{2A} receptors was detected in the caudate nucleus. The 5HT_{1D α} receptor was found only in the CA3 field of the Hammon's horn and in the caudate nucleus. These findings confirm that 5-HT receptors are widely distributed in the brain, but that the different subtypes possess a selective localization in different neuronal populations which, in turn, may express one or more receptors. In addition, these data permit to hypothesize a link between specific serotonin receptor subtypes, distinct brain areas and some psychiatric disorders.

ZUR ELEKTROKRAMPFBEHANDLUNG (EKB) IN EINER PSYCHIATRISCHEN UNIVERSITÄTSKLINIK — EINE RETROSPEKTIVE UNTERSUCHUNG UNTER EINSCHLUSS VON 140 PATIENTEN

K. Peter, S. Luthardt. *Klinik für Psychiatrie der Friedrich-Schiller-Universität Jena Philosophenweg 3, D-07740 Jena*

1. Ziel der Studie: Ziel dieser retrospektiven Untersuchung ist die Analyse der Daten von 140 Patienten, die im Zeitraum von 1986 bis 1991 eine Elektrokrampfbehandlung (EKB) erhielten. Dabei sollten insbesondere Diagnosen und Indikationen, Effizienz und Nebenwirkungen dieser Behandlung analysiert werden. Weiterhin war es Ziel, mit den vorhandenen Daten und den patientenabhängigen Merkmalen Erfolgskriterien für die zukünftige Anwendung der EKB zu bestimmen.

2. Methodik: In der Untersuchung fanden die Daten von 140 Patienten Eingang. Dabei wurden verwertbare Daten aus den Krankengeschichten der Patienten gewonnen wie Alter bei stationärer Erstaufnahme, Alter bei der ersten Behandlung im Untersuchungszeitraum (UZR), Geschlecht, Familienstand, Wohn- und Ausbildungssituation, Diagnose, Arbeitsfähigkeit, weitere Daten zum stationären Regime und zur bisherigen Behandlung sowohl die Indikation zur EKB als auch die Einordnung der Effizienz der EKB mit deren Nebenwirkungen und weitere wichtige Faktoren. Die Auswertung der Daten erfolgte mittels des Programmsystems SPSS/PC*. Dabei wurden folgende Statistiktests angewandt: Kruskal-Wallis-Test, Likelihood-Ratio-Test, Whitney-U-Test und Fishers-Exact-Test. Die gewonnenen Daten dienen zur Entwicklung eines logistischen Regressionsmodells, mittels dessen berechnet wurde, wie hoch die Wahrscheinlichkeit einer stationären Wiederaufnahme der Patienten in Abhängigkeit von den erhobenen Merkmalen war.

3. Zusammenfassung einiger Resultate: Es zeigte sich, dass bei der Hälfte der durchgeführten Behandlungen der Erfolg als gut eingeschätzt wurde. Im Untersuchungszeitraum gelangten 74 Patienten aus der Ausgangspopulation von 140 nach der Behandlung mit EKB wieder zur stationären Aufnahme. Dabei vergingen durchschnittlich bis zur

Wiederaufnahme 251 Tage. Nach den Krankenblattunterlagen fanden sich in etwa 70% der durchgeführten Behandlungen Nebenwirkungen, die vor allem als mnestiche Störungen angegeben wurden. Die Daten zu Diagnosen und zur Indikation entsprachen weitgehend den in der Literatur berichteten Erfahrungen. Wesentlich vital bedrohliche Komplikationen während oder nach EKB wurden in keinem Fall gesehen.

4. Schlussfolgerungen: In der Untersuchungspopulation zeigte es sich, dass in etwa der Hälfte der Fälle der Nutzen der EKB als gut oder zufriedenstellend eingeschätzt werden konnte. Verglichen mit einer parallelisierten Kontrollgruppe fielen jedoch bei den an der EKB teilnehmenden Patienten die meisten Parametern deutlich schlechter aus. Das aufgrund der vorliegenden Daten berechnete statistische Modell würde es erlauben, in etwa 70% der Fälle eine Wiederaufnahme vorauszusagen. Die Grenzen der vorliegenden Untersuchung sind vor allem in ihrem retrospektiven Charakter zu sehen. So scheint es zur weiteren Bestimmung der Wertigkeit dieser Untersuchungsmethode erforderlich, eine solche Studie unter den Bedingungen z. B. von EEG-Monitoring oder konsequenter unilateraler EKB durchzuführen.

MENTAL HEALTH OF HOSPITAL CONSULTANTS: THE EFFECT OF STRESS AND SATISFACTION AT WORK

A.J. Ramirez, J. Graham, M.A. Richards, A. Cull, W.M. Gregory. *United Medical and Dental Schools of Guy's and St Thomas's Hospitals, London, SE1 9RT, England*

The prevalence of burnout and psychiatric morbidity among four types of hospital consultant — gastroenterologists, surgeons, radiologists and oncologists — has been estimated in a national questionnaire-based survey. The relationship between consultants' mental health and their job stress and satisfaction, as well as their job and demographic characteristics, were also examined. Psychiatric morbidity was estimated using the 12-item General Health Questionnaire. Burnout was assessed using the Maslach Burnout Inventory. Job stress and satisfaction were measured using study-specific questions.

882/1133 (78%) consultants returned their questionnaires. The estimated prevalence of psychiatric morbidity among consultants was 27% and there were no differences across the four specialist groups. Radiologists reported the highest level of burnout in terms of low personal accomplishment. Job satisfaction significantly protected consultants' mental health against the adverse effect of job stress. Feeling overloaded and its effect on home life, feeling poorly managed and resourced and dealing with patients' suffering were associated with both burnout and psychiatric morbidity. Burnout was also associated with deriving low satisfaction from relationships with patients, relatives and staff, low satisfaction from professional status/esteem and low satisfaction from intellectual stimulation. In addition being aged ≤ 55 years and being single were independent risk factors for burnout. Burnout was more prevalent among consultants who felt insufficiently trained in communication and management skills than among those who felt sufficiently trained.

Consultants' mental health is likely to be protected against the high demands of medical practice by maintaining or enhancing job satisfaction and by providing effective training in communication and management skills.

DRAMATHERAPY FOR MENTALLY DISORDERED OFFENDERS: CHANGES IN LEVELS OF ANGER

D. Reiss, M. Quayle, T. Brett, C. Meux. *Broadmoor Hospital, Crowthorne, Berkshire, RG11 7EG, England*

The aim of this study was to examine changes in levels of anger associated with a therapeutic theatre project. The population was a sample of mentally disordered patients in a maximum security hospital. All

the subjects were being treated on a ward with a milieu based on a therapeutic community model, that specialises in psychotherapeutic interventions.

Twelve young adult male patients, defined by structured interview for personality disorder and clinical diagnosis for mental illness, participated in the week long dramatherapy project. They were evaluated using self-report questionnaires (an Anger Inventory tailored to the maximum security hospital environment; the State-Trait Anger Expression Inventory) both before and after the week, as well as at three month follow-up.

The main result was that measured levels of anger significantly reduced from before to after the theatre week. This improvement was maintained at three month follow-up. There was an associated increase in the frequency of attempts to control the expression of anger.

Our conclusion is that a dramatherapy project within a psychotherapeutic environment may be an effective treatment modality for reducing anger levels in young mentally disordered offenders.

PSYCHOPATHOLOGY AND COGNITIVE IMPAIRMENT IN MYOTONIC DYSTROPHY

J.S. Rubinsztein, D.C. Rubinsztein, S. Goodburn, P.J. McKenna, A.J. Holland. Cambridge University Department of Psychiatry, Douglas House, Cambridge, CB2 2AA, UK; Department of Medical Genetics, Addenbrooke's Hospital, Cambridge, CB2 2QQ, UK

Introduction: Myotonic Dystrophy (DM) is primarily considered a neurological disease characterized by myotonia and muscle weakness. Psychiatric manifestations and cognitive impairment have been considered important aspects of this disease. However, most studies of these features were performed on comparatively severely affected individuals with unequivocal clinical diagnoses. The recent discovery of the DM mutation, a trinucleotide repeat expansion, has allowed us to ascertain and study subjects with milder disease. Thus, we could exclude the confounding effects of low intelligence and severe disability associated with congenital and early childhood onset disease.

Aims: To delineate and characterize the psychopathology and cognitive features of milder cases of DM and to investigate the relationship between the size of the trinucleotide repeat and any impairment. Psychopathology in DM subjects was compared with that in Charcot-Marie-Tooth disease, another genetic and peripheral neurological illness in order to establish if these manifestations were primary rather than secondary to the muscle disease.

Results: We found no excess of major depression in the DM patients, in contrast to previous studies. However, apathy was a prominent feature of DM in comparison with Charcot-Marie-Tooth disease. Hypersomnolence was also a common symptom specific to DM, but showed no correlation with apathy. Our data suggest that apathy and hypersomnolence are distinct and independent primary symptoms resulting from the DM mutation, as opposed to being secondary to muscle weakness and/or disability. Contrary to previous findings we do not confirm an impairment in general intelligence. A previous study suggested severe impairment of executive function. In this study two out of three executive function tests revealed tendencies towards impairment, which were of borderline significance. Although the DM subjects were of normal intelligence as a group, there was evidence of impairment of memory function using the Rivermead Behavioural Memory Test. This suggests that memory function may be more sensitive to small CTG repeat expansions than general intelligence.

Conclusions: Apathy is the most striking psychopathological feature in DM. Intelligence is normal in milder DM although a downward shift in memory function in the group as a whole was observed.

INTRODUCTION TO THE PSYCHIATRIC PROBLEMS AND MENTAL HEALTH IN LITHUANIA

Palmira Rudalevičienė. Vilnius Psychoneurological Hospital, Vilnius, Lithuania

Lithuania is a newly discovered country for many people in the world. For a long 50 years of Soviet occupation Lithuania had not been mentioned on the world's map. We were locked away from any communication. Only the KGB examined persons were allowed to visit us from overseas. Attention needs to be given to the fact that idealized culture not reality had been presented to the world all these years. The real cultural stress, conflicts, existing climate of fear and tension, influences that had been sending a person to therapist- all these were carefully locked away from the world. We always had to control ourselves as we knew what we could express, what verbalize and what we could not. Thinking and feeling were of one contents but verbalizing of another. From here paranoia and depression were spreading from person to person. God was taken away from us. We were praying secretly. It was a crime. Psychotherapy had not been supported because of the intention to prevent people from thinking and analysing processes.

Still a law of mental health is not accepted. There is no social psychiatry in the Republic at all. All the social work has to be done by a physician. The payment for a doctor is \$70 per month.

Currently the psychiatric services in the Republic of Lithuania are provided by the Ministry of Health, the Ministry of Social Welfare and to some extent by the Ministry of Culture and Education. The strongest component of psychiatric services still remains in-patient. To sum up, for several decades the state hospitals fulfilled the functions for society of keeping mentally ill out of sight and thus- out of mind. Unfortunately the ways in which state hospitals achieved this structure, led to everyday abuses that have left scars on the psychiatric services and the mental health services on the whole. Only socially and politically neutral scientific investigation have been carried out during these five decades in Lithuania. Research projects have not been financially supported by governmental or other resources and was supposed that scientific investigation is the personal problem. The same situation lasts until today.

The radical changes in all fields in Lithuania stimulated the growing awareness among psychiatrists that they themselves must be responsible on a professional group for the future of Lithuanian psychiatry.

ACUTE ALCOHOL INTAKE: RELATIONSHIP BETWEEN NEUROPHYSIOLOGICAL PARAMETERS AND PERFORMANCE TASKS

A. Hernández-Collados, M. Sánchez-Turet. Departament de Psiquiatria i Psicobiologia Clínica, Facultat de Psicologia, Passeig de la Vall d'Hebron, 171, 08035 Barcelona, Universitat de Barcelona, Spain

It is known that ethanol acts as a depressor of CNS and induces impairment in different performance tasks. The results of experiments with single neurons, with animals *in vivo*, and electroencephalographic recordings show that ethanol depresses neuronal electric activity. However, these effects have been shown to depend of the doses used, post-ingestion time, and cerebral zone studied. Therefore, the establishment of correlations between the electroencephalographic activity registered and the task performance, considering different doses, times post-ingestion and electroencephalographic derivations could contribute useful information to clarify these effects. To this end, in our work twelve young men were used as experimental subjects with cross-over design and three experimental conditions (placebo, 0.4 g/Kg y 0.8 g/kg). Every ten minutes, the subjects performed perceptive-motor tasks, and electroencephalographic recordings were