

mentioned changes were accompanied by psychologically tested increase of self-appraisal level and by lessening of emotional tension.

Thus, we can make a conclusion that using the methods of biopathy in the treatment of chronic alcoholics, specifically B-N, provides positive changes in the indexes of "quality of life" in terms of generalized criterion of effectiveness of rehabilitating measures that may form the basis of treatment preventing relapse of the disease.

#### **P.5.029 P300 abnormality due to chronic alcohol exposure in patients with alcohol dependence**

M. Fatih Karaaslan, Seher Sofuoğlu, İbrahim Eren, Mustafa Baştürk, Ali Saffet Gönül, Mustafa Reyhancan. *Erciyes University School of Medicine, Department of Psychiatry, Kayseri, Turkey*

**Objective:** Scalp recorded P300 (or P3), the long latency event-related potential (ERP) occurring in response to a stimulus that is unexpected and primarily originated from limbic system, has been reported to be an indicator of neuronal structural changes (1, 2). In this study, we aimed to examine the probable effect of chronic exposure to alcohol on ERP components in patients with alcohol dependence who had not overt cognitive dysfunction.

**Method:** Twenty-six male patients with alcohol dependence diagnosed to DSM-III R criteria (mean  $\pm$  SD age:  $45.04 \pm 5.98$ ) and 15 male age-matched healthy control subjects who had no history of alcohol usage (mean  $\pm$  SD age:  $43.20 \pm 6.96$ ) were included in the study. Mean  $\pm$  SD duration of alcohol consumption was  $22.50 \pm 6.26$  years. Cognitive functions were evaluated by using mini mental state examination and Bender (visual-motor) gestalt tests. Auditory ERPs were recorded by "odd ball two voice discrimination task" procedure in the third week of alcohol withdrawal while the patients were drug-free. Latency and amplitudes of N1, N2, P2, P3 components of ERP were evaluated. Measurements were made using the Nihon-Kohden MEB-530 signal averaging computer.

**Results:** We found that the patients had P3 latency (mean  $\pm$  SD:  $342.0 \pm 37.11$  msec) significantly longer than that of the controls (mean  $\pm$  SD:  $319.20 \pm 21.26$  msec) ( $t = 2.175$   $p < 0.05$ ). There was no significant correlation between P3 latency and age or duration of alcohol consumption in the patients.

**Conclusion:** Prolonged P3 latency is considered to be an abnormality associated with dementia (3). We conclude that our finding of delay in P3 latency may indicate a neuronal structural impairment due to chronic exposure to alcohol in patients with alcohol dependence despite the fact that obvious cognitive dysfunction is not observed.

#### **References**

- [1] Goodin DS (1992) Event-related (endogenous) potentials. In: Aminoff MJ (ed) *Electrodiagnosis in Clinical Neurology* (3th ed). Churchill Livingstone. New York, pp 627-642.
- [2] Halgren E, Squires NK, Rohrbaugh JW, et al (1980) Endogenous potentials generated in the human hippocampal formation and amygdala by infrequent events. *Science* 210: 803-805.
- [3] Neshige R, Barrett G, Shibasaki H (1988) Auditory long-latency event-related potentials in Alzheimer's disease and multi-infarct dementia. *J Neurol Neurosurg Psychiatry* 51: 1120-1125.

#### **P.5.030 Markers of thiamine balance in clinical manifestation of alcoholic psychoses**

A. Soloviov, P. Sidorov, E. Bojko, I. Kirpich. *State Medical Academy, Psychiatry Department, Arkhangelsk, Russia*

Vitamine disbalance is often observed in alcohol abusers. An important role in the pathogenesis of psychosomatic manifestation of chronic alcoholism and its aftereffects – acute alcoholic psychoses (AAP)- is played by vitamines disbalance of B complex. The aim of the research is to determine the peculiarities of thiamine content in the organism in AAP and abstinent states.

A group of 43 men suffering from the second stage of alcoholism were examined, 14 of them being in delirious state, 17- under hallucinosis, 12- in abstinent state. The control group consisted of 17 men-donors. Investigations were carried out on the 1st, 3rd-4th, 6th-7th days after admission to hospital. The patients underwent a course of desintoxicative therapy which included alongside with antipsychotic and sedative

medicines vitamines of B complex- thiamine and pyridoxine in average pharmacopeial dose administered intramuscularly.

A highly reliable decrease of activity of thiaminepyrophosphate dependant enzyme-transketolase (TK) was discovered at the peaks of both kinds of AAP. After a week of desintoxicative therapy course in spite of the subjective improvement of the ill persons' condition in case of delirium there was marked a weak increase of TK activity without parallel decrease of TPP effect- a measure of thiamine content. The dynamics of revivification of mental functions and thiamine content did not show tendency to grow. It provides evidence for serious disbalance of metabolism in case of the most severe alcoholic psychoses which is always connected with numerous pathological somatic changes.

Under hallucinosis a more distinct tendency for the increase of TK activity and decrease of TPP effect was observed which is likely to be conditioned by the absence of vivid somatic component of psychosis. Under abstinence, a state without psychotic changes, the observed indexes approximated to the control ones by the end of the week.

The results obtained show the degree of interrelation between psychic changes and thiamine content under alcoholic psychoses and abstinence. On the one hand thiamine deficiency deteriorates general somatic status of the patient and on the other hand it may slow the process of normalization of psychosis. The thiamine accumulating ability of the organism being rather low, the early interruption of treatment course may serve as a provoking factor for manifestation of vitamine-dependant somato-neurologic aftereffects.

#### **P.5.031 Management of dependence of the opioid type**

M. Thuillier, J. Lacour, Y. Jullien, H.H.S.L. Seetharamdoo. *Centre Hospitalien Avenue Pierre Scherrer 8900 Auxerre, France*

first assessment of Buprenorphin substitution as compared with methadone substitution in a heroin-addicted population

#### **P.5.032 Neurochemical bases for pharmacological treatment of psychoactive substance dependence**

I.P. Anokhina. *State Research Center on Addictions, Moscow, Russia*

On the basis of numerous studies it is assumed that central mechanisms of dependence on various psychoactive substances (alcohol, drugs, etc.) are similar. The major role in these mechanisms is played by the alterations in the brain "reward" system operation related to characteristic disturbances in the catecholamines (CA) metabolism and functions, such as an increased release and destruction of the brain CA under the effect of alcohol and drugs and, as a result, their decreased concentration during long-term consumption of the substance. A compensatory acceleration of CA synthesis and changes in the activity of MAO, DBH and other enzymes favor the increase in the DA content of the brain and blood after alcohol and drug withdrawal which is the major mechanism of the withdrawal syndrome development. The normalizing of CA system functions by the pharmacological interventions is accompanied by arresting pathological craving for psychoactive substances and other symptoms of alcohol and drug dependence.

The brain CA system may be regulated by both the direct pharmacological action on its functions and the influence on other neurotransmitter systems – 5-HT, GABA, opioid, etc. In our experimental and clinico-biochemical studies, the most effective were: (a) small doses of DA receptor agonists (apomorphine and bromocriptine), (b) CA and 5-HT reuptake blockers (lerivon, fluvoxamine, coxalil, etc.), (c) neuropeptides (cholecystokinin and its fragments and substance "P"), and (d) some plant agents.

#### **P.5.033 Predictive factors of drop-out in outpatient treatment for drug dependence**

S. Castel. *Institute of Psychiatry, Department of Psychiatry, Hospital das Clinicas, University of São Paulo, Brazil*

**Purpose of the Study:** This study presents a six month follow-up of 179 psychoactive substance dependents (other than alcohol and nicotine only)

in an outpatient treatment program, regarding their drop-out rates and tests the predictive power of 11 variables, measured at the beginning of the treatment, over this drop-out rates.

**Methods:** On the basis of literature and clinical experience, we selected 11 variables to be tested: gender, marital status, age, educational level, job status, age of drug use onset, IV use, drugs ever used, suicide attempts, previous treatments, time between onset of drug use and treatment seeking. Besides these variables, we tested also the predictive power of the Psychoactive Substance Dependence Follow-up Scale (PSDFS), a scale we developed in our service, and which is use to evaluate the patients along the treatment. When a patient failed to attend to an appointment, he (she) was recalled by phone or letter. We only considered a drop-out when the patient didn't show up after three sequential recalls. The relationship between the variables and outcome (dropout) was established using a Logistic Regression model.

**Results:** After three months of follow-up, 99 (55.3%) patients remained in treatment. After six months, 61 (34.1%) patients remained in treatment. The only variable that showed a predictive power regarding the first three months was previous treatments (OR = 1.83; CI = 1.22; 2.75). Patients without previous treatments had lower chances of dropping-out. After six months, women (OR = 0.55 CI = 0.33; 0.94), patients with previous treatments (OR = 0.69 CI = 0.47; 0.99) and the ones with the highest leisure scores of the PSDFS (OR = 1.58 CI = 1.01; 1.58) had the highest chances of remaining in treatment.

**Conclusions:** Of special interest is the fact that previous treatments was the strongest predictive factor because it had a predictive power after three and six months of treatment. But there was an inversion between these two times. This could be to the choice patients make upon treatment: patients with previous treatments had their own expectations more clearly defined and made their choice faster than the ones without previous treatments. This way, they drop-out earlier but when they remain in treatment, they stay longer.

#### P.5.034 Comparison of morphine and methadone maintenance in pregnant opiate addicts

P. Etzersdorfer, G. Fischer, H. Eder, R. Jagsch, K. Schmidl-Mohl, W. Gombas, S.D. Schindler. *Department of General Psychiatry, University of Psychiatry, Vienna, Austria*

A majority of studies demonstrate the advantage for mother and child in using methadone-maintenance in pregnant opiate addicts. It is also proven, that infants born to methadone maintained mothers are more severely affected in their neonatal withdrawal syndrome as infants with an intrauterine exposure to heroin. Over a period of 50 months, the drug-addiction out-patient clinic at the Department of General Psychiatry at the University of Vienna investigated 52 pregnant opiate addicts in administering during pregnancy either methadone or slow-release morphine. The subjects (mean age: 26 years, mean duration of pregnancy before starting maintenance treatment: 19 weeks) were consecutively enrolled in an open study design. The oral opioid at time of delivery was in 50% of the subjects methadone (mean daily dosage 45 mg), in 43% morphine (mean daily dosage 340 mg) and 7% were successfully detoxified and drug-free. The mean birth weight in the methadone group was 2850 g, in the morphine group 2880 g. No significant differences occurred in comparing the mean duration of withdrawal syndrome in the newborns, 16 days in the methadone group and 20 days in the morphine group. No significant correlation between withdrawal syndrome and mean daily dosage of methadone ( $r = 0.53$ ,  $p = 0.2$ ) and morphine ( $r = 0.39$ ;  $p = 0.14$ ) could be found. Both substances are safe during pregnancy and yield to a comparable outcome in regard to birth-weight of the infant and neonatal withdrawal syndrome.

#### P.5.035 Lithium carbonat in maintaining the abstinence from alcohol

V. Filovska, M. Jakovčevska-Kujundžiska, V. Lazarova. *Mental hospital "Skopje", Macedonia*

Alcohol dependence and depression are a prevalent combination of psychiatric disorder among persons seeking treatment. Many authors

reported that 70% of alcoholics meet criteria for another psychiatric diagnosis at some point during their lifetimes and that 50% of those with a history of alcohol abuse also meet criteria for Major depression or affective disorder.

**Method:** Diagnosis has to be define after a four weeks abstinence period. Clear distinction must be present between primary and secondary disorder. In this report are analysed twelve female patients with co-morbidity of both diagnosis, which were estimated by Hamilton depression scale. After the detoxication they were treated with antidepressants and prevented by Lithium carbonate.

**Results:** One of the patients decreased in new depressive episode, anotherone had uncontrolled alcohol abuse. Rest of the patients showed remarkable successes in maintaining the abstinence from alcohol.

**Conclusions:** Authors considered that Lithium carbonate can be used as a mood-stabilizing medication, as effective one in abstinence maintaining in alcoholics with primary affective disorder. Also primary alcoholism can be complicated with depressive phenomenon and suicidal attempts, which can be provided with appropriate antidepressants including Lithium carbonate.

#### References

- [1] Joseph A. Flaherty, Robert A. Chanon, John M. Davis "A Lange clinical manual Psychiatry, diagnosis and therapy", 1989.
- [2] Simić S. "Lithium in clinical practice", 1975.

#### P.5.036 Comparison of buprenorphine and methadone in opiate addicts

G. Fischer, W. Gombas, H. Eder, R. Jagsch, S.D. Schindler, L. Perawas, S. Kasper. *Department of General Psychiatry, University of Psychiatry, Vienna, Austria*

Methadone maintenance therapy is broadly established in Europe. Since 1987, methadone maintenance in opiate addicts is available in Austria, where presently 2500 subjects have been enrolled (8 million inhabitants). In 1993, we started to maintain subjects in an oral slow-release morphine maintenance program, where 1000 opiate dependent subjects with a mean daily dosage of 540 mg have been enrolled. In USA, Buprenorphine has been studied for many years in opiate addicts, no controlled studies have been performed in Europe so far. In 1996, Buprenorphine was registered in France for maintenance therapy in opiate addicts. In the drug addiction out-patient clinic in Vienna, a study with an open, flexible study design in comparing methadone and buprenorphine has been performed in opiate dependent subjects (DSM-IV 304.0). 20 subjects on buprenorphine and 20 subjects on methadone were investigated over a study period of 6 months. The mean age in the study population (35 male and 5 female subjects) was 25.5 years, the mean duration of opiate dependence was 7.5 years. Prior to the study, all subjects were abusing heroin. The subjects were seen twice a week and received hand-outs for the days between, supervised urine samples for toxicology were taken at each visit. The mean daily sublingual dosage of buprenorphine was 8 mg, the mean oral methadone-dosage was 75 mg. Preliminary results demonstrate that in regard to retention rate both substances are comparable.

#### P.5.037 Prevalence of hepatitis C in a consecutive investigation of opiate dependent subjects in a drug addiction clinic

W. Gombas, G. Fischer, H. Eder, I. Okamoto, K. Schmidl-Mohl, S.D. Schindler. *Department of General Psychiatry, University of Psychiatry, Vienna, Austria*

The drug addiction out-patient clinic at the University of Psychiatry, Vienna is focusing on the treatment of opiate dependent subjects. A majority (351 subjects) of our patients has been enrolled in an opioid-maintenance treatment program (methadone, slow-release morphine, buprenorphine). Over a period of 4 weeks we have been investigating the serostatus in regard to HIV and hepatitis in patients presently enrolled in a maintenance program. Investigating 180 subjects, 85% showed a positive result for hepatitis C in a PCR assay. In 15 male subjects (mean age 25 years, mean duration of opiate dependence: 5.2 years) an alpha-interferon (Roferon