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Object: Beta thalassemia is a hereditary disease of hemoglobin synthesis that causes mild to severe microcytic anemia and hemosiderosis in many organs that finally results in organ failure in severe cases. Many of them need blood transfusion. Drug dependence is a recurrent and chronic problem that has two aspects: bodily (physiologic) and behavioral.

Methods and Materials: A total of 207 β thalassemic patients were randomly selected upon 810 β thalassemic patients that referred to Shiraz Coolys Center in May–July 2005, south of Iran. We studied the prevalence of addiction in these patients and compared it with normal population. We also evaluated probable risk factors of drug dependence. There was no other study found worldwide.

Results: Out of 207 patients, 19 (9.2%) patients were drug dependent and their most common motivation was acquisition of enjoyment. Between several risk factors that were studied, only sex (male), marital status (single), history of past surgery and existence of another addict person in their family were statistically important ($0.01 < P \text{ value} < 0.05$).

Discussion: Although the prevalence of addiction in thalassemic patients (9.2%) was near the same in normal population of Fars province (10.2%) and Iran (12.5%), but it still has a high prevalence and it should be considered as a psychosocial problem. As this study was the first study done on this subject we hope that in future there'll be more studies to help these patients to have a better life style and live longer with better health and life expectancy.

P0029

Anxiolytic activity of Atrial Natriuretic Peptide and β -Endorphin during acute Ethanol withdrawal in mice

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Background: Dysregulation in the neuroendocrine stress system has been attributed repeatedly to the stressful and anxiogenic state observed during alcohol withdrawal. Activity of the atrial natriuretic peptide (ANP) has been shown to inhibit the release of corticotrophin releasing hormone (CRH) and corticotrophin (ACTH) and opioid neurotransmission also plays a role in counteracting effects of sustained stress by facilitating the termination of the hypothalamo-pituitary-adrenocortical (HPA) axis stress response. Thus ANP and β -endorphin may be involved in modulating the HPA axis activity in alcohol withdrawal. Aim of the study was to evaluate the anxiolytic activity of ANP and β -endorphin during alcohol withdrawal in mice habituated to chronic alcohol intake.

Methods: 24 male mice (C57/Bl6J) were studied following 21 days of free-choice and forced alcohol intake. Anxiety related behavior (elevated plus maze, open field) was tested during acute ethanol withdrawal (12 hours after last ethanol consumption). 30 minutes before testing, randomized groups of mice were given i.p. injections of ANP (60 $\mu\text{g}/\text{kg}$), β -endorphin (2 $\mu\text{g}/\text{kg}$) or saline.

Results: Acute alcohol withdrawal in alcohol habituated mice was associated with increased anxiety related behavior. Application of both, β -endorphin and ANP, was significantly associated with reduced anxiety related behavior.

Conclusions: Taking into consideration data from studies in humans, where decreased levels of β -endorphin and ANP were

associated with anxiety during acute and protracted alcohol withdrawal, our results suggest a causal relationship between ANP, β -endorphin and withdrawal-induced anxiety in alcohol related disorders.

P0030

Using the Finnish internet addiction test version to measure heavy use of the web

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Background & Aims: The interest on the possible problems that might be associated with heavy use of the web has increased. The aim of this study was to test the correlates and validity of the Finnish version of the Internet Addiction Test.

Methods: 1825 students filled a web-based questionnaire that included questions on socio-demographic background factors, reasons for use of the internet, symptom score measures and questions of use of substances. The back-translation of the Internet Addiction Test (IAT) was reviewed by the developer of the scale.

Results: Almost all (99.6%) respondents used the web more than once a week. Those with a CAGE score 2 or above had a mean of 39.4 on the IAT and those below 2 had a mean of 35 on the IAT ($p < 0.001$). Those who were more distressed had a higher mean score on the IAT than those who did not reach the cut-point for being distressed (43.8 vs. 35.2, respectively, $p < 0.001$). High IAT score was also significantly associated with use of the internet for chatting and sexual purposes ($p < 0.001$). Using factor analysis, we found a two factor solution: 1) a depressive isolation factor (eigenvalue 15.02) and 2) loss of control factor (eigenvalue 1.53). The Cronbach- α for the sum factors were 0.91 and 0.81 respectively.

Conclusions: The IAT seems to provide a valid measurement of harmful use of the internet as the score was significantly associated with variables tapping psychopathology. Most of the variance in the score of IAT is explained by depressive isolation.

P0031

The life-line. Dramatherapy and drug addiction

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I am working with Dramatherapy method more than 17 years in different therapeutic centers for drug addiction and this abstract is focusing to specific technique, the "life – line".

It is requested from the participants to draw their life up to now as a "metro-line", marking the most interest stations in their itinerary and the most remarkable person in each station, following ups and downs ways between stations, according their mood in every period.

When this process is completed, it is requested from the members of the group to organize in the place their "life-line" with the most important stations in their lives and put the members of the group in roles of the represented persons in each station. Then, they pass in front of these persons, having a contact with one phrase with them, in order to understand, comprehend and reframing their relations up to now.

The results of the application are:

- 1) The clients "see" their life as a journey, with two phases, before and after drug use.
- 2) They have the opportunity to deal with the moment they began to use drugs.

- 3) They have the chance to “talk” with the “significant others” of their life to understand and to reframe their problematic relationships.
- 4) They give to the members of the group a role in their life, so they increase and improve the dynamics of the group.
- 5) They concentrate into their life and they realize it as a “whole”.

P0032

Fetal alcohol syndrome and its neuropsychological consequences

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Background: Children of alcohol addicted mothers often present deficits of memory, attention, hyperactivity, difficulties in understanding abstract terms, low control of impulses.

Aims: The aim was to assess the cognitive dysfunction level, and following that to estimate the optimal adjustment of the school environment for particular patients.

Methods: We recruited to our study patients aged between 9 and 18, being taken care of by a psychiatrist, and, partly, from a group of patients participating in a special adjustment rehabilitation program for children with FAS and FAE. The patients were examined with a computerized tests included in the VTS (Vienna Test System): COGNITRON, CORSI, RT (REACTION TEST) and, additionally SIGNAL and DAUF in patients matching age requirements.

Results: Qualitative and quantitative deficits were found. In most patients the most significant were deficits in COGNITRON and CORSI tests, which presented a highly disturbed resistance to distractors, and deficits in working memory. The less characteristic were deficits in the RT test measuring reaction time to simple and complex stimuli. The most difficult to perform turned out to be SIGNAL and DAUF tests. Most of the patients did not manage to do the whole task because of a too low resistance to distractors.

Conclusions: The results of the studies confirmed the reports of teachers and caregivers about great problems that this group had with concentration, sustained attention, and vigilance. However they did not confirm or sometimes contradicted the reports concerning the problems with memory presented in school conditions, and when learning at home.

P0033

Problems with the evaluation of reaction time data: Developing flexible assessment tools to account for time-series effects

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Background and Aims: Computerised measurement of reaction times is state of the art in many fields of research and clinical examinations. Usually, these examinations employ only measures of central tendency (median, mean), deviation (standard deviation) and correct reactions (false reactions). The time course (i.e., sequence) of the individual reaction times has hardly been considered so far.

Methods: Using an assessment software recently developed for scientific purposes (Procalysis®) the attentional performances of multiple drug users are assessed in the context of time series analyses

regarding specific effects of comorbidity (e.g. schizophrenia) or the respective drug use profile.

Results: In addition to the main affects of multiple drug abuse, comorbid schizophrenia is another significant cause of fluctuating reaction times. Besides generally reduced mean reaction times, the time course analyses also indicate comorbidity-dependent specific stage characteristics, which in turn are related to task complexity.

Conclusion: Both in research and the clinic, time series analysis of reaction times should be considered. They can help reveal stage characteristics over time, which can give the clearest indication yet of the extent of subtle brain dysfunctions. This also applies to the ecological validity of single case assessments, such as for determining the ability to drive or operate machinery.

P0034

Neurocognitive function deficits and drug abuse: Specific forms of intoxication

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Background and Aims: So far, research on the long-term effects of chronic multiple drug abuse regarding specific neurocognitive function deficits has been only tentative. However, also regarding rehabilitation of mostly young long-time addicts, studies are urgently needed (e.g., ability to drive or operate machinery) which are directed at the typical abuse clusters (e.g., alcohol and cannabis) of subgroups in a heterogeneous cohort of drug users.

Methods: A group of 750 drug users was examined and the cognitive function deficits in various attentiveness systems compared against the retrospectively detected drug use pattern. Type, extent and stability of drug use were followed back for 10 years.

Results: The study subjects used drugs of different effects: While morphine was hardly associated with serious cognitive function deficits, with cannabis both the cumulative lifetime dosage and the duration of use correlated with subtle disorders of multimodal stimulus processing and control of eye movement. Cumulative use of alcohol also had a negative effect on the cognitive functions, particularly working memory and the frontal executive functions. The effect of amphetamines, methamphetamines and cocaine varied depending on which other drugs were used. Comorbidity (e.g., schizophrenia) also was important.

Conclusions: These neurocognitive function disorders can lead to impairment of cognitive functions which may be needed professionally. The implications of these results for diagnosis and therapy of comorbid multiple drug users are discussed by means of cases typically seen in rehabilitation centers.

P0035

Clinical-morphological signs of chronic Opioid intoxication

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Considerable number of latent drug users is testified by increase of lethal outcomes because of drug overdosing. We have analyzed lethal outcomes when cause of death was opioid overdosing. We have considered 98 cases among them in 86 cases – men died, in 12 - women. Lethal outcome of drug overdose has occurred at the age of 20,6±1,12 years. Diagnosis of somatic pathology in opioid addicts shows clinical-morphological consistence in chronic hepatitis of viral and toxic etiology (77,5%). Identification