

Sociodemographical data, medical and psychiatric history, substance abuse pattern and treatments received have been collected.

**Results:** Although the heterogeneity of the studied sample, the most frequent profile observed has been low social class, Mediterranean male stereotype affected of schizophrenia and related disorders or with borderline personality disorder. Cannabis and alcohol are the most frequent substances.

**Conclusions:** the results of this study contributes to elaborate and modify our dual pathology program.

## P0047

The TAQ1A DRD2 Polymorphism in type II alcoholism: Marker of age at onset or of a familial disease?

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**Background and Aims:** Cloninger's type II is a severe, early-onset, male-limited, genetically influenced, impulsive form of alcoholism. We assessed the association of two gene polymorphisms (TaqI A DRD2 and 5-HTTpro) with Cloninger's typology, as defined by age at onset of alcohol-related problems, and family history of alcohol abuse, which is thought to be more frequent in type II alcoholics.

**Methods:** 58 male alcohol dependent patients were discriminated according to age at onset of alcohol-related problems and interviewed about family history of alcoholism. Genomic DNA was extracted and PCR amplifying the studied polymorphisms were performed. The associations between DRD2 (A1 or A2 alleles), 5-HTTpro (L and S alleles), family history and typology were assessed by Pearson chi2 analyses.

**Results:** While typology was not influenced by any of the studied polymorphisms, a higher rate of general family history of alcohol abuse was still observed in type II patients ( $\chi^2= 4.53$ ;  $p = 0.033$ ). Furthermore, the A1 allele of the DRD2 was significantly associated with paternal history of alcoholism ( $\chi^2= 4.66$ ;  $p = 0.031$ ) and male, first-degree, collateral history of alcoholism ( $\chi^2= 4.40$ ;  $p = 0.036$ ).

**Conclusions:** Age at onset as main discriminator between type I and type II does not seem to be influenced by TaqI A DRD2 and 5-HTTpro polymorphisms. However, the A1 allele of the DRD2 may be a marker of male familial alcoholism, which is in line with previous studies showing association between TaqI A DRD2 with some clinical features of type II alcoholism.

## P0048

Chronic heroin and cocaine abuse is associated with decreased serum concentrations of the nerve growth factor and brain-derived neurotrophic factor

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Chronic cocaine and heroin users display a variety of central nervous system (CNS) dysfunctions including impaired attention, learning, memory, reaction time, cognitive flexibility, impulse control and selective processing. These findings suggest that these drugs alter normal brain functions and possibly cause neurotoxicity. Neurotrophins are a class of proteins that serve as survival factors for CNS neurons. In particular, nerve growth factor (NGF) plays an important role in the survival and function of cholinergic neurons while brain-derived

neurotrophic factor (BDNF) is involved in synaptic plasticity and in the maintenance of midbrain dopaminergic and cholinergic neurons.

Our goal was to identify possible change in serum neurotrophins in heroin and cocaine users.

In the present study, we measured by enzyme-linked immunosorbent assay (ELISA) the NGF and BDNF levels in serum of three groups of subjects: heroin-dependent patients, cocaine-dependent patients and healthy volunteers.

BDNF was decreased in heroin users whereas NGF was decreased in both heroin and cocaine users (1).

These findings indicate that NGF and BDNF may play a role in the neurotoxicity and addiction induced by these drugs. In view of the neurotrophin hypothesis of schizophrenia the data also suggest that reduced level of neurotrophins may increase the risk of developing psychosis in drug users.

1) Angelucci F, Ricci V, Pomponi M, Conte G, Mathe AA, Tonali P, Bria P. Chronic heroin and cocaine abuse is associated with decreased serum concentrations of the nerve growth factor and brain-derived neurotrophic factor. *J Psychopharmacol.* 2007 Aug 22

## P0049

Subcutaneous implantation of Disulfiram-effective therapy or placebo?

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Disulfiram is one of most important drug in the treatment of alcoholics. Oral form of disulfiram was found 60 years ago. Subcutaneous form is in use more than 30 years. There are a lot of studies with dilemma is it effective therapy or placebo. We tried to elucidate this problem. We analyzed 36 alcoholics who implanted Disulfiram during one-year (2004.). We follow those patients during next two years (2005. and 2006.). During this more than two years period, 26 patients (72%) were in total abstinence, 6 patients (17%) were in abstinence more than one year and only 4 patients (11%) had abstinence less than one year. Social-demographic characteristics of patients with Disulfiram implant were: age between 31 and 40 years (36%), male (94%), with secondary education (61%), who live in town (53%), married (53%) and with agreement for hospital treatment (high motivation) (69%). We conclude that Disulfiram implant is very effective therapy, because 3/4 of all implanted patients have longer abstinence than two years, related the standard oral therapy of Disulfiram (max. 60% patients have abstinence longer than one year).

## P0050

The influence of the Antioxidant Carnosin on the intensity of the alcoholic patients pathological addiction to alcohol during rehabilitation period

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Carnosin is an endogenously synthesized dipeptide composed by beta-alanine and L-histidine. It acts as a free radical scavenger and possesses antioxidant and antiglycating properties. It is well known that the chronic oxidative stress is formed in alcoholism. A new bioactive medication for people with carnosin as a basic active substance (Russian trade name "Sevitin") has been developed in Russia. The analysis of the influence of the Sevitin on the pathological addiction to alcohol of alcoholic patients during rehabilitation is presented in this study.