suffered from the depression more frequently than men, as expected. "Depressive people" contacted physicians more frequently, and sick leaves are significantly longer than in none-depressive population. This study showed that only a small amount of affected persons have been adequately treated for the depression. Lifelong prevalence of suicidal thoughts was 4.8%. Also, the social impact of the illness and stratification in population subgroups was demonstrated

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THE RELATIONSHIP BETWEEN ASPECTS OF TRAIT IMPULSIVITY AND IMPULSIVE SUICIDAL BEHAVIOR

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a) The ability to control one's thoughts and behavior is an essential personality trait which is described by the dimension of impulsiveness. Impulsivity is frequently used to classify special features of suicidal behavior. The question remains to be clarified in what way suicidal acts are influenced by cognitive and behavioral subtraits of impulsivity which can be measured by means of performance tests and personality questionnaires.

b) 45 patients with at least one suicide attempt in their history were included into this study. An additional criterion was the absence of a neurological and psychotic symptoms, addictions to a substance and other comorbidity. Subjects were diagnosed according to DSM-III-R and classified into a high and a low impulsive subgroup by means of the items No.6 and 15 of the Beck Suicide Intent Scale. A neuropsychological test battery was administered to assess speed and accuracy of cognitive performance, problem solving and time estimation. Behavioral trait impulsivity, temporal structure and time perspective were measured by standardized self report.

c) The statistical comparison of the subgroups indicate a larger number of steps for the strategic problem solving task ($p < 0.5$) in subjects with a more impulsive suicidal behavior. The high impulsive subgroup shows a decreased speed ($p < 0.5$) with a non-significant tendency of a higher error rate in a task which requires visual-motor coordination. Concerning time estimation we found inhomogeneous results. Subjects with rather impulsive suicidal features report a lower temporal structure ($p < 0.1$) as well as a higher ($p < 0.5$) present fatalistic time perspective. They also non-significantly tend to feel a lower future orientation and a higher past negative orientation. These characteristics are correlated to self-reported behavioral impulsivity ($p < 0.5$) in the whole group.

d) The preliminary results suggest the existence of a subgroup of suicidal patients in which the tendency to act on impulse within suicide attempts may be influenced by distinctive cognitive and behavioral features related to trait impulsivity. The study is ongoing to confirm these trends of significance.

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TRANSGENIC MICE OVEREXPRESSING BRAIN HUMAN AMYLOID PRECURSOR PROTEIN SHOW AN AGE-DEPENDENT COGNITIVE IMPAIRMENT IN THE MORRIS WATER MAZE

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Alzheimer's disease (AD) pathology is characterized by an increased amyloid content in the brain and by a progressive decline of cognitive abilities. A mice model of AD, transgenic mice overexpressing the 751-amino acid isoform of human amyloid precursor protein (APP) responsible for Alzheimer – like brain pathology were tested in a battery of cognitive spatial tasks and the results were related to age and sex. Tests in a modified Morris water maze (MWM) and on a stable or rotating circular dry arenas were performed in wild type mice (WT) of the JU strain and in F10 and F15 pedigrees of two different transgenic founder mice in animals aged 1.5, 3, 6 and 24 months. The animals were trained in 6 daily sessions, 4 swims/session, to find a hidden escape platform in the center of the SW quadrant of the pool in less than 1 min. In the dry arena, the animals were trained under two different conditions – in a passive (when the arena was stable) and an active (when the arena rotated 1 turn/min) place avoidance tasks. The mouse was punished by a horizontal blast of compressed air whenever it entered a prohibited 60°-sector (PS) defined in room coordinates. Four parameters were evaluated: (1) the time to the first entrance into the PS, (2) the time between two subsequent entrances into PS, (3) the total number of entrances into PS and (4) the total time spent in the PS. In the MWM, the WT animals improved in solving the task. 1.5-month old animals decreased their escape latencies significantly ($p < 0.01$) from the value of 35 ± 4 s (mean $\pm$ s.e.m.) to the asymptotic level of 13 ± 3 s on Days 3 to 6. The asymptotic escape latencies of WT increased slightly with age. Young F15 pedigrees also improved their performance, their escape latencies decreased significantly from the initial values of 55 ± 6 s to 18 ± 2 s and 24 ± 3 s in 1.5 and 3 month old animals, respectively. These young transgenic animals improved more slowly than WT but eventually they reached the level of WT. In contrast, 6-month and older transgenic animals did not reach the WT level at all; their asymptotic escape latencies significantly differed from that of WT. In both dry arena tasks, the performance of all animals improved with training in all parameters, but there were no significant differences between groups. The discrepancy between MWM and dry arena results is under investigation. The present data demonstrate an age dependent impairment of navigation learning in MWM in mice overexpressing human APP. A slight cognitive deficit appears already in young animals and can be compensated by further training while this deficit is severe in 6-month and older animals and remains irreversible despite of extended training.