

**Background and aims:** In clinical practice, psychiatric morbidity of ten seems to complicate rehabilitation after traumatic brain injury (TBI). The aim of this study was to evaluate the occurrence of psychiatric disorders at 12 months after TBI.

**Methods:** Thirty-eight subjects had been referred to Turku University Hospital because of a recent TBI. Psychiatric disorders were assessed with the Schedules for Clinical Assessment in Neuropsychiatry (SCAN, version 2.1).

**Results:** Six subjects (15.8%) had a psychiatric disorder with onset after TBI. The rates of these disorders were as follows: major depressive disorder 7.9%, depressive disorder not otherwise specified 5.3%, and posttraumatic stress disorder 2.6%. During the 12-month period before TBI, a psychiatric disorder could be diagnosed retrospectively in 14 subjects (36.8%). The most common disorders were alcohol dependence (18.4%) and major depressive disorder (10.5%). When disorders with onset before TBI and after TBI were considered together, 44.7% of the patients had psychiatric morbidity during the first 12 months after TBI. The lifetime rate of psychiatric disorders was as high as 65.8%.

**Conclusions:** During the first 12 months after TBI, the development of psychiatric disorders was less common than expected. However, depressive disorders were prevalent. Before TBI, alcohol use disorders were frequently found. As the occurrence of psychiatric disorders seems to be high in individuals with TBI, a need for psychiatric evaluation should be kept in mind when treating patients after TBI.

## P287

Mutually related depression and dementia syndromes in elderly patients

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**Background and aims:** Depression and dementia are the most frequent mental disorders at senior age. It is assumed that long-term depressions grow into dementia and the relationship between both syndromes has been discussed. The purpose of our study was to establish whether there exists mutual relationship between dementia and depression and whether depression resistant to therapy is a risk factor for dementia development.

**Methods:** 25 patients who suffered prolonged phases of depression resistant to therapy were included and monitored for two years. Their average age was 75.4 years (range 65 to 88). The diagnosis of the group was as follows: 11 patients suffered from periodical depressive disorder, 7 patients from depressive phase, 1 patient from bipolar affective disorder and 6 patients from organic depressive disorder. The patients met the diagnostic criteria of severe depression according to ICD-10, the depression grade was assessed by the Geriatric Depression Scale by Yessavage. The diagnosis of dementia was based on clinical examination, CT of the brain, cognitive functions were assessed using the MMSE test.

**Results:** 11 patients of the 25 observed persons with chronified depression symptoms passed into dementia in the course of 2 years. They were 4 patients suffering from periodical depressive disorder, 4 patients with depressive phase and 3 patients with organic depressive disorder.

**Conclusions:** Our study implies that the development of dementia in depressive patients is significantly more frequent than in non-depressive persons of comparable age. Chronic depression resistant to therapy represents a risk factor for the development of dementia.

## P288

Early psychical disorders at children with epilepsy

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**Introduction:** A research of an early psychical disorder at children plays an important role in exploration of epilepsy. These children have broad spectrum of various pathological states which manifest early attacks of epilepsy (Betts T.A., 1995). The aim of current research is to learn early psychical disorders at children with epilepsy.

**Methods:** 346 children in the age of 3-18 with epilepsy and psychical, behavioral disorders were observed between attacks of epilepsy. The disorders were compared with DSM-IV.

**Results:** In most cases (54.9%) psychical, behavioral disorders didn't have association with epilepsy and in 45.1% of cases had association with epilepsy. These disorders had four variants: the mental deficiency – 70%, the psychoorganical syndrome – 21.6%, autism spectrum disorders – 2.6% and behavioral disorders – 5.8%.

190 children with psychical disorders had many injury factors in ontogenesis of brain. These factors were complicated pregnancy and childbirth, a trauma in the childbirth, negative heredity (relations these children had the mentally subnormal and additional problems) and unfavorable environment. Children had the symptomatically, generalizationally and focally forms of the epilepsy.

**Conclusions:** At children epilepsy may be accompanied by the mental deficiency, psychoorganical syndrome, autism spectrum disorders and behavioral disorders. These conditions have no association with debut of epilepsy but psychical disorders and epilepsy undoubtedly complicate each other making these disorders harder.

## P289

An attempt of factorial analysis of the typological formation of non-psychotic disturbances after brain damage

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**Aim:** To find out the dynamic peculiarities of the formation of non-psychotic (neurotic) disturbances after brain damage, and how non-organic factors conduce to their development.

**Methods:** 124 patients with non-psychotic disturbances after brain damage were examined (mean age-35.7±1.11, mean duration-6.23±0.57) by dynamic clinical-psychopathological method. Using specially designed questionnaires the social-psychological states of the patients were assessed. They also completed SCL-90.

**Results:** The patients distributed into 3 groups according to psychopathological analysis of the neurotic syndromes. 31 of them developed asthenic-depressive disturbances (G1), 57—personality changes (G2), 36-hypochondriacal disturbances(G3). The number of patients after brain trauma in G3 was lower than in G1 ( $p<0.01$ ) and G2 ( $p<0.001$ ). After intoxications the number of patients in G3 was higher, than in G1 ( $p<0.05$ ) and G2 ( $p<0.001$ ). Significant differences were found by the burdened familial history of mental disorders and premorbid constitutional accentuations of personality between G1 and G3 ( $p<0.05$ ). 51 patients of the G2 (89.5%) were affected by severe psychogenic factors, but only 10 patients in G1 (32.2%) and 8 patients in G3 (22.2%) had the same influences. So the number of distressed patients in the G2 was higher than in G1 ( $p<0.001$ ) and G3 ( $p<0.001$ ). The Hostility by SCL-90 is higher in G2, than in G1 ( $p<0.05$ ) and G3 ( $p<0.001$ ).

**Conclusions:** There is certainly interplay of organic and non-organic factors in the genesis of non-psychotic disturbances after brain damage. The hereditary, constitutional and psychogenic factors are of great importance in the typological formation of the neurotic syndromes after brain damage.

## P290

Dopamine agonists and pathological gambling in parkinson disease

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**Background and aims:** There is an increasing awareness that pathological gambling can occur as an adverse effect of some dopamine agonist, specially pramipexole, used in the treatment of Parkinson disease. The aim of this study is: 1) to make a review of the literature concerning to this issue; 2) to describe a case that developed pathological gambling after increasing dopamine agonist dose in clinical practice.

**Methods:** We systematically searched PubMed database using the following combinations of variables: “compulsive gambling”, “Parkinson disease”, “dopamine agonist” and “gambling”. We also review the clinical record of the patient we identified.

**Results:** We found 36 articles. 4 of them were excluded because they were not strictly about pathological gambling. They describe an association between treatment with dopamine agonists and reversible impulse control disorders (ICD) such as hypersexuality, addictions, compulsive eating and pathological gambling. Daily doses of dopamine agonists were significantly higher in patients who developed an ICD. Pramipexol was the predominantly reported medication. Our case is about a 46 year old married man with Parkinson disease. After increasing the dose of pramipexole in order to achieve a greater efficacy he gradually developed ICD, pathological gambling type. This led to a change in his antiparkinsonian medication.

**Conclusions:** As many cases of ICD after using dopamine agonists are being reported in the literature, doctors should aware patients about this potential adverse effect.

## P291

Asian cultural influences on dementia in a developed country: a Singapore perspective

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**Background and aims:** One of the major challenges in Asia is the impact of diseases in the aging population. Dementia is a common and disabling disorder in the elderly which has gained growing public health relevance. The Asian populations in developing countries have been known to report a lower prevalence of dementia, partially influenced by their cultural background and traditional societal roles for the elderly. We aim to investigate how living in a developed country with a strong Asian cultural background, influence perceptions on dementia.

**Methods:** We invited in-patients of a tertiary hospital, with no previously diagnosed cognitive impairment, to complete an anonymous, self-filled questionnaire about their perceptions of dementia, societal trends and the current role of elderly in Singapore.

**Results:** Majority of respondents had strong traditional values and felt a duty of care for elderly within their family. Societal norms still suggests that our elderly would more likely give up position of

authority and property for younger members of the family. Our elderly also became significantly less active in society after retirement.

**Conclusion:** With the rapid development of our society and trend towards nuclear families, the resultant possibility of higher carer stress and pressure for residential placement facilities are likely to grow.

## P292

peg-interferon alpha and ribavirin (peg-IFNalpha/RBV) therapy may induce working memory disturbances in chronic hepatitis c (CHC) patients

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There was a great improvement in CHC prognosis after the introduction of combination therapy with peg-IFNalpha/RBV. The highest treatment drop-out rate is related to interferon-induced mental health problems including confusional states, depressive episodes and manic conditions. The literature concerning working memory abnormalities observed during peg-IFNalpha/RBV therapy of CHC patients was scarce.

The aim of the study was to describe the probable connection between peg-IFNalpha/RBV treatment and the development of cognitive functions' disturbances in CHC patients.

Forty-seven CHC patients were consecutively enrolled in the study. They were arbitrarily divided into two groups: experimental and control consisting of 26 and 21 participants, respectively. Experimental group patients were given peg-IFNalpha/RBV treatment for 48 weeks in standard doses recommended by manufacturers. Control group patients did not receive the above treatment. Both groups underwent neuropsychological examination at the beginning and after 12 weeks of treatment or observation. Neuropsychological evaluation consisted of Stroop Color Word Test (SCWT) and Trail Marking Test (TMT) - instruments used for the assessment of the higher cognitive functions like working memory.

Cognitive performance measured by means of SCWT and TMT decreased significantly in the experimental group after 12 weeks of combination therapy. No significant deterioration was seen in the control group over the period of observation.

The findings suggest that peg-IFNalpha/RBV therapy of CHC patients is connected with the deterioration in cognitive functioning including working memory. The above changes may be the effect of interferon alpha-induced neurotransmission abnormalities in the limbic system, dorso-lateral prefrontal cortex and anterior cingulate cortex.

## P293

Attention abnormalities in chronic hepatitis c (CHC) patients during peg-interferon alpha and ribavirin (peg-IFNalpha/RBV) therapy may persist after treatment discontinuation

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Persistence of various cognitive abnormalities was observed after peg-IFNalpha/RBV therapy discontinuation. The literature concerning CHC patients was scarce and inconclusive.