

**P0334**

Long-term cognitive outcome of delirium in elderly hip-surgery patients

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**Background and Aims:** To study the long term effects of delirium in elderly hip-surgery patients on cognitive outcome.

**Methods:** Prospective matched controlled cohort study. Medical school-affiliated general hospital in Alkmaar, The Netherlands.

Hip-surgery patients (n=112) aged 70 and older who participated in a controlled clinical trial of haloperidol prophylaxis for delirium, were followed for an average of 30 months after discharge. Patients with a diagnosis of dementia or mild cognitive impairment (MCI) were identified based on psychiatric interviews. Proportions of patients with dementia or MCI were compared across patients who had postoperative delirium and selected control patients matched for preoperatively assessed risk factors who had not developed delirium during hospitalization. Other outcomes were mortality rate and rate of institutionalization.

**Results:** During follow-up 54.9% of delirium patients had died compared to 34.1% controls (relative risk = 1.5, 95% CI = 1.04-2.1). Dementia or MCI was diagnosed in 77.8% of the surviving patients with postoperative delirium and in 40.1% of control patients (relative risk = 2.7, 95% CI = 1.2-5.8). Group differences for rate of institutionalization were not significant.

**Conclusion:** The risk of dementia or MCI at follow-up is more than doubled in elderly hip-surgery patients with postoperative delirium compared with patients without delirium.

**P0335**

Effects of impairments in executive functions and semantics on speech disorganisation in schizophrenia

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**Background and Aims:** Semantic knowledge (long-established knowledge about objects, facts, and word meanings) is known to be impaired in schizophrenia. It has been hypothesized that language disorder in schizophrenia is linked both to executive and semantic dysfunctions.

**Methods:** To examine this hypothesis we assessed 32 patients with schizophrenia (with and without formal thought disorder) and 30 matched normal controls. We compared the performances obtained by the two groups on the tests that evaluate executive functions (WCST) and semantic knowledge (Pyramids and Palm Tree Test). Test of verbal fluency were also applied.

**Results:** Patients generally performed at a lower level than controls. Patient with thought disorder performed at a lower level on tests sensitive to executive dysfunction and semantic impairments.

**Conclusion:** The results provide support for a dysexecutive hypothesis of formal thought disorder in schizophrenia and semantic processing.

**P0336**

The management of delirium in the general hospital and the role of consultation-liaison psychiatrists

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**Objective:** Despite its high prevalence and association with increased morbidity, mortality and health services utilization, delirium is often under-recognized and under-treated in general hospitals.

**Methods:** We report our experience of consultation in the treatment of medical patients with delirium in a General Hospital.

**Results:** During the last 12 months our department has accepted 93 requests for consultation with patients diagnosed as having delirium, which represents a percentage of 9,59% of the total requests for psychiatric assessment. The mean duration of the symptoms was 2 days prior to the request for consultation. The main symptoms that were reported were agitation and delusions even when other important symptoms such as disorientation and insomnia co-existed. Medication had already been administered by the physicians in 63,44 % of cases (in 69,49% haloperidol and in 30,51% a benzodiazepine had been administered). No preventive interventions had been made even in patients at high risk. It is noteworthy that 9,67 % were physically restrained before consultation. Laboratory tests for the investigation of the disorder were performed only in 12,9 % . The duration of hospitalization was prolonged from 3 to 8 days because of the delirium.

**Conclusions:** Although delirium is a common condition in patients admitted to General Hospitals, preventive interventions are lacking, the diagnosis is often delayed and the treatment is inadequate. The role of Consultation-Liaison Psychiatrists is not only to treat the patients' delirium but also to inform and educate the physicians and the hospital staff of other disciplines about the management of the syndrome.

**P0337**

Mortality after delirium in elderly hip-surgery patients. A 2 years follow-up study

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**Background and Aims:** To study the long term effects of delirium in elderly hip-surgery patients on cognitive mortality.

**Methods:** This is a prospective study. Medical school-affiliated general hospital in Alkmaar, The Netherlands. Participants (n=603) from the €Haloperidol Prophylaxis for Elderly Hip-Surgery Patients at Risk for Delirium. A Randomized Placebo-Controlled Study (Kalisvaart et al., 2005). Patients with and without post-operative delirium were followed for 2 years. Mortality risk associated with delirium was estimated using a Cox proportional hazards regression model; the outcome was time to death.

**Results:** A total of 75/603 patients (12.4%) died during the study period (table 1). Incidence of delirium was higher in patients who died compared with those who survived (HR 2.16, CI 1.30-3.58). They were more often at risk for delirium as indicated by higher rates of cognitive impairment and visual impairment.

**Conclusion:** Delirium after hip-surgery and delirium risk factors are associated with long-term follow-up mortality.

**P0338**

Association between anxiety, depression and cognitive dysfunction in patients with multiple sclerosis

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**Background and Aims:** Neuropsychiatric literature demonstrates the high impact of cognitive deficits in patients with Multiple Sclerosis (MS), as well as the increased prevalence of anxiety and depression in patients with chronic illnesses, especially in the subgroup of MS patients. The aim of our study is to investigate the existence of an association between depression, anxiety and cognitive deficits in patients with MS.

**Methods:** Demographic data, MS subtypes, and years since diagnosis were documented for 60 patients with MS, who participated in our study. Patients were evaluated for depression and anxiety by the Beck's Depression Inventory (BDI) and the Spielberger's questionnaire (State-Trait Anxiety Inventory) respectively. The Symbol Digital Modalities Test (SDMT) was used to evaluate cognitive deficits.

**Results:** According to our preliminary data, 60% of MS-patients scored higher than normal in the BDI. There was a significant negative correlation between years since diagnosis and SDMT (Pearson's correlation <0.01), as well as between BDI and SDMT (Pearson's correlation <0.01). No correlation was established between anxiety and both depression and SDMT.

**Conclusions:** Depression and cognitive deficits have a high prevalence in patients with MS. This is due to the severity and chronicity of MS. In our study, depression is strongly associated with cognitive deficits and years since diagnosis of MS, although it is still in progress for further data evaluation. More studies are required to elucidate the cause of this established association.

**P0339**

Metyrapone and Mifepristone reverse memory loss induced by spontaneous Morphine withdrawal in mice

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Morphine withdrawal leads to an increase in corticosterone concentration in plasma, and cognitive deficits are found, after withdrawal. Evidence indicates that glucocorticoid hormones affect memory. The aim of the current study was to evaluate the effects of metyrapone and mifepristone on memory deficit following spontaneous morphine withdrawal. Memory was experienced by using the object recognition task. Novel object recognition task was carried out in a square wooden open-field apparatus using objects. The test was comprised of three sections; habituation for 15 min, first trial for 12 min and test trial for 5 min. In this learning paradigm, the difference in exploration between a previously seen object and a novel object is taken as an index of memory performance (recognition index, RI). Male mice were made dependent by increasing doses of morphine (30-90 mg/kg) subcutaneously twice daily for three days. RI was assessed 4 hour after the last dose of morphine on the third day. Mifepristone (50,100 mg/kg) and metyrapone (12.5, 25 mg/kg)

were used subcutaneously before the first trial and effects were compared with control values. Metyrapone 25 mg/kg, and mifepristone 50mg/kg improved RI to  $34.8 \pm 10.8 \%$  and  $25.4 \pm 11.7 \%$  respectively, which are significantly different from control values (RI=  $14.8 \pm 10.7 \%$ ,  $P < 0.05$ ). These results show that increased glucocorticoid concentration can be involved in memory deficit caused by morphine withdrawal. Therefore metyrapone by inhibiting glucocorticoid formation and mifepristone by inhibiting glucocorticoid receptors can be useful for preventing memory deficit following morphine withdrawal.

**P0340**

Speech disturbances in children aged 18 yrs at early onset of epilepsy

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The aim of the study is the estimation of the level of development of speech and estimation the importance of risk factors which can disturb development first stages of human development. 40 patients aged 1- 8 yrs of age participated in the study. They underwent psychological, neurological and physiotherapeutical evaluation. The inclusion criteria included the prevalence some perinatal disturbances as risk factor of developmental delay and prevalence the epilepsy treated with conventional or novel antiepileptic drugs (AEDs). The data from Apgar Scale used as well. Parents confirm the agreement for the examinations as well. The Developmental Scale Denver and Brunet- Lezine, AFA Scale for Children and Neuropsychological Tasks Set used in the study.

The analysis of variance with SPSS support used for revision of hypothesis. The mean of IQ was 65 in examined group. The speech disturbances in understanding correlated to intellectual delay as well. 20 children have problems with walking and revealed the objectives of intellectual impairment additionally. 17 children had problems with social contacts and verbal expression of needs.

The results show there was strict connection between the time of occurrence of epilepsy and the speech disturbances, data important on  $p < 0.01$ . There was no significant impact of epilepsy treatment on cognitive functions, especially speech, but the efficacy of treatment correlated with IQ parameters.

In conclusion — early onset of epilepsy and non —efficient control of seizure are the main factor which disturb normal development of speech on level of expression and impression.

**P0341**

Memantine induces expression of PLA2 genes in rat brain: Possible implications for reverse learning and memory of Alzheimer's disease patients

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Memantine, an aminodamantane, is a non-competitive NMDA receptor antagonist with strong voltage-dependence and fast kinetics. Unlike other drugs used to treat Alzheimer's disease, memantine blocks NMDAR channels in a concentration, time and voltage-dependent fashion. Previous results of our group evidenced a correlation of