

Chairperson(s): Tilo Kircher (Aachen, Germany),
Gabriela Stoppe (Basel, Switzerland)
08.30 - 10.00, Gasteig - Room O.131

SS-17-01

The efficacy of specialised old age psychiatric wards: A multicenter randomised clinical trial

T. Kircher, G. Buchkremer, H. Wormstall, C. Meisner. *Klinik für Psychiatrie u. Psychotherapie, RWTH, Aachen, Germany*

Objective: Psychiatric illness in old age poses particular demands on diagnosis and treatment. We compared the one year clinical outcome of a specialised treatment for old age psychiatric patients. 360 consecutively admitted frail inpatients above age 65 and several functional impairments were randomly assigned to a intervention or control group. The intervention group was diagnosed and treated by a specialised old age psychiatric care team (geriatric psychiatrist, nurse, social worker), the control group on a general psychiatric ward. All patients were assessed at admission and after one year follow up with the Timed Up and Go Test, Tinetti Motility Test, functional impairments, ADL, BPRS, MADRS, GDS, quality of life, sensory status, social situation. All treatment interventions during the inpatient treatment were coded. After one year follow up, the two treatment groups did not differ in the primary outcome variables mortality, length of inpatient treatment and nursing home placement. There was also no difference in the secondary outcome variables, such as Depression, ADL, social functioning, subjective well being and others. In conclusion, special geriatric care in frail elderly inpatients in Germany does not seem to have an effect after one year. The study was supported by the German Research Council (DFG), the Ministry of Social Affairs Baden-Württemberg, and the fortune-Programme of the University Tübingen.

SS-17-02

7-year follow-up investigations and comparison of the geriatric psychiatric inpatient service in a separated care at a state hospital and an integrated care at a university hospital in Goettingen, Germany

G. Stoppe. *Bristol-Myers Squibb GmbH, Basel, Switzerland*

SS-17-03

Geriatric psychiatry and in-patients wards for treatment of the elderly in Romania

N. Tataru, *Romania*

Objective: Like in all countries in this part of the world, the geriatric psychiatry is still not enough represented. The number of professionals working in the field is still very low to satisfy the needs of care of elderly with mental disorders. Mental health services for the elderly. The elderly with acute and chronic mental disorders, as well as those with dementia, are taken care of both in psychiatric short and long-stay hospitals and in social services. The last ones are inadequately trained to care for these patients, being without professional staff qualified in social work or in geriatric psychiatry. In spite of the professionals' endeavor specializing in the teaching and training program, there exist only a few

psychogeriatric services and less special care services for dementia patients.

Methods: Geriatric Psychiatry Ward in Nucet. The aspects of morbidity and mortality in Geriatric Psychiatry Unit in Nucet were studied since 1996 till in present.

Results: As a Long term unit for elderly, this ward offer the medical therapy, psychotherapy and occupational therapy, assessment of their disability, impairment and handicap.

Conclusion: The quality standards must be improved, especially those concerning elementary care needs and quality of life (accommodation, food, sheltered house, sheltered work places and community involvement). Today in Romania, in the care of mentally ill people we are trying to orient the mental services from the classical psychiatric hospitals towards the community care services.

Monday, April 4, 2005

O-05. Oral Presentation: Dementia / Geronto-psychiatry

Chairperson(s): Nicoleta Tataru (Romania),
Michael Rapp (New York, USA)
14.15 - 15.45, Holiday Inn - Room 7

O-05-01

Functional abnormalities of the visual attention system in mild cognitive impaired subjects

A. Bokde, P. Lopez-Bayo, C. Born, T. Meindl, W. Dong, S. Teipel, M. Reiser, H.-J. Möller, H. Hampel. *Ludwig-Maximilians-Universität Psychiatry, München, Germany*

Objective: In previous studies, it has been found that the visual system is affected in Alzheimer's disease (AD) with the decline in brain activation correlated with cognitive decline. The objective of the study is to measure the changes in activation in the visual system between mild cognitive impaired (MCI) subjects and healthy controls (HC) subjects using an attentional task that would selectively activate both visual pathways in HC.

Methods: There were an MCI group of 16 subjects and an age-matched HC group of 19 subjects. There were two tasks: (a) a face matching task and (b) a location matching task. The task performance was not statistically different between groups and between tasks. Brain activation was measured using functional magnetic resonance imaging (fMRI).

Results: The HC group activated selectively the ventral and dorsal pathway during the face and location matching tasks, respectively. The MCI group did not activate selectively the two visual pathways. The MCI group had greater activation compared to the HC group in the left frontal lobe during the location matching task. There were no areas of increased activation in the HC group compared to the MCI group. There was no significant group by task interaction. The neural substrate underpinning visual attention had changed in the MCI group compared to the HC group.

Conclusion: The MCI group, as a compensatory mechanism, activated both visual pathways and increased activation in the left frontal lobe during the location matching task compared to the healthy controls. This is the first study that has examined visual attention along both visual pathways in an MCI group.

O-05-02

Decision making in dementia

R. Ihl, V. Stihl, S. Brieber, B. Grass-Kapanke. *Düsseldorf, Germany*

Objective: Impaired decision making is an important cognitive symptom of dementia. For decision making, the problematic situation must be understood and logical conclusions must be drawn. Depending on severity of dementia, we investigated what proportion of decision making capabilities remains unimpaired. Data of an intermediate evaluation are presented.

Methods: 40 patients suffering from Alzheimer dementia and 7 healthy elderly age comparable controls were investigated with the GDS, the TE4D, social problem-solving-tasks and tasks on drawing logical conclusions. Male-female-ratio was 14/33, median age 73, 43 percent living alone. 10 Spearman correlations were calculated and significance level alpha-adjusted after Bonferroni at $p < .001$.

Results: Quality and quantity of solutions in social problem situations were correlated with - logical conclusions ($r_s = .714$, $p < 0.001$) - score of the TE4D ($r_s = .756$, $p < 0.001$) - score of the GDS ($r_s = -.716$, $p < 0.001$) The ability to conclude logically was correlated with - the score of the TE4D ($r_s = .658$, $p < 0.001$) - the score of the GDS ($r_s = -.626$, $p < 0.001$).

Conclusion: Social problem solving and logical conclusions are correlated. Both abilities correlate with the severity of dementia explaining more than 50 percent of variance. Compared to stage 1 and 2 of the GDS, in stage 3 the ability to conclude logically is reduced to the half. In GDS 4 nearly 80 percent of patients show insufficient abilities to draw correct conclusions. These results may have influence on research as well as on legal practice.

O-05-03

Correlation of neuropsychological evaluation and SPECT in patients with dementia

M. L. Onor, E. Aguglia. *U.C.O. of Clinical Psychiatry of Clin, Morph and tec Science, Trieste, Italy*

Objective: Neuropsychological evaluation is a very useful tool for diagnosis changes in cognitive functions in patient with dementia. On the other hand, HMPAO brain Spect has been shown to have a high sensitivity to detect neurodegenerative processes, which lead to dementia. We compared both methods in order to find a rational use of two methods.

Methods: 254 patients diagnosed with Alzheimer's Disease and Vascular dementia were examined. Each patient underwent neuropsychological evaluation, as well as HMPAO brain SPECT. Statistical analysis was performed in order to evaluate the correlation between imaging findings and neuropsychological testings.

Results: The impairment in memory was significantly correlated to left and right temporal regions.

Conclusion: In most instances, a combination of both methods should be employed by the general practitioner for further evaluation of dementia

O-05-04

Evaluation of shunting in idiopathic normal pressure hydrocephalus: Psychometric testing, gait analysis and PET

B. Grass-Kapanke, H. Hautzel, T. D. Pöppel, N. Welke, M. Sabel, M. Messing-Jünger, R. Ihl. *University of Duesseldorf Geriatric Psychiatry, Duesseldorf, Germany*

Objective: Idiopathic normal pressure hydrocephalus (iNPH) is well characterised by its clinical symptoms and altered neuroanatomy. Cerebrospinal fluid shunting is widely accepted as a reasonable effective treatment. But there are very few investigations concerning the long term outcome after surgery. Due to the literature, shunting leads to improvement of the gait disorder as well as incontinence but not to an enhancement in cognition. However, this may be due to an inadequate evaluation of cognition in previous research.

Methods: Patients with diagnosed iNPH underwent a wide-spread psychometric testing of orientation, memory, reasoning, attention and concentration, speech, transcoding and identification of emotions. This test battery was administered before as well as 1 week, 12 weeks and one year after surgery to reflect the long term effect on cognitive function. Additionally PET scans and gait analysis were performed.

Results: Three month after shunting, there was a significant enhancement in gait (0.03, $n=6$) but not in incontinence (0.06). Moreover, the TE4D as part of the testbattery showed a significant enhancement in cognition (0.03). Furthermore PET data revealed significant correlations of rCBF and glucose metabolism with the TE4D score (0.01) in prefrontal and temporal regions. Scores for cognition one week after surgery had no predictive value for the long term outcome. Actual data will be presented.

Conclusion: Shunting of iNPH led to significant changes in gait disturbance as well as cognition. For cognitive function the results one week after surgery had no predictive value for the long term outcome. This result supports our suggestion, that the enhancement of cognition after shunting has been overlooked in previous studies.

O-05-05

Increased hippocampal plaques and tangles in alzheimer's disease patients with a lifetime history of major depression

M. Rapp, V. Haroutunian, J. Gorman. *Mount Sinai School of Medicine Psychiatry, New York, USA*

Objective: The hallmark pathological changes in Alzheimer's disease (AD) are abundant plaque and tangle formation, especially in the temporal lobes and hippocampus. Although recent research indicates that major depression may lead to impaired neuronal plasticity and decreased efficacy of neuroprotective mechanisms in the hippocampus, there have been no studies of neuropathological changes in AD as a function of history of major depression. Our objective was to test the hypothesis that that neuritic plaques (NP) and neurofibrillary tangles (NFT) are more pronounced in the hippocampus of AD patients with a lifetime history of MDD, as compared to AD patients without depression history.

Methods: Post-mortem study. 52 brains of AD patients without a lifetime history of major depression were compared to 50 brains of AD patients with a lifetime history of major depression. Main outcome measures were neuropathological ratings from the Consortium to Establish a Registry in Alzheimer's Disease (CERAD) battery.

Results: Brains of AD patients with a lifetime history of depression showed higher levels of both plaque ($P < .005$) and tangle ($P < .005$) formation within the hippocampus than brains of AD patients without a lifetime history of depression. Results remained significant when controlling for covariates ($P_s < .01$).

Conclusion: In AD patients, the presence of a lifetime history of depression corresponds to increases in AD-related neuropathological changes within the hippocampus. Further research is needed to establish whether these changes indeed reflect impaired neuroprotective mechanisms and neurogenesis processes due to recurrent major depression throughout the life course.

O-05-06

Pain experience in demented patients as indicated by facial responses

M. Kunz, V. Mylius, S. Scharmann, K. Schepelmann, U. Hemmeter, S. Lautenbacher. *Philipps-University Marburg Psychiatry and Psychotherapy, Marburg, Germany*

Objective: It is well known that the ability to report pain deteriorates in demented patients during the course of illness. For that reason, alternative pain assessment tools are badly needed to provide valid measurements of the pain experience in demented patients. The aim of the present study was to examine the pain experience in demented patients as indicated by facial responses (FACS) using experimentally controlled stimuli and to focus on the usability of facial responses as an alternative pain assessment tool in demented patients.

Methods: 20 demented patients and 40 aged matched healthy controls were investigated for their responses to mechanically and electrically induced pain. Facial responses were examined using the Facial Action Coding System (FACS). Self-report was assessed via a 6point category scale.

Results: Preliminary analysis showed no group differences in regard to self-report ratings (though dementia interfered with the subjects' ability to provide self-report). In contrast, overall facial responsiveness to painful stimuli showed itself to be markedly increased in demented patients. However this increase was due to an unspecific increase in facial actions. When exclusively focusing on pain specific responses, no group differences were obtained.

Conclusion: Dementia influences both the verbal and non-verbal communication of pain, making the assessment of pain difficult. Yet, when focusing on pain specific facial actions the facial expression seems to be unchanged and seems to provide a valid assessment tool for the subjective pain experience even in patients with severe dementia, where self-report is lacking.

O-05-07

Quality of life assessment in Alzheimer disease

D. Vasile, M. Gheorghe. *Central Military Hospital Department of Psychiatry, Bucharest, Romania*

Objective: To determine the impact of somatic, psychological, social and family impairments in Alzheimer patients lives and to establish a correlation between the severity of illness and the decrease in quality of life level. Background: Many patients diagnosed with Alzheimer dementia have somatic and/or psychopathological comorbidity, this fact inducing a decrease in patient's global functioning and quality of life.

Methods: We selected 12 patients with first psychiatric admission for Alzheimer disease (DSM IV TR) with late onset, medium age 72.3 years and we assess their somatic, psychiatric and social level of deterioration. For this purpose an initial evaluation using: 1)psychiatric instruments: MMSE, HAM-D, HAM-A, GAF

scale (actual level), MANSA; 2)clinical psychiatric interview; 3)general medical examination.

Results: A high degree of somatic and psychiatric comorbidity was established for Alzheimer dementia patients – ischaemic cardiopathy (43%), hyperblood pressure (38%), osteoporosis (20%), diabetes mellitus (12%), and psychiatric disorders – depressive disorder due to Alzheimer dementia (29%), mixed anxiety-depressive disorder (13%), panic disorder (5%). Dysfunctions in relationships and maladaptive behaviors are related to low GAF level and to low MMSE score. The quality of life is proportionally decreased related to MMSE score, GAF level, HAMD and HAMA scores.

Conclusion: We established that patients with Alzheimer dementia (Axis I) usually have another psychiatric disorder (Axis I) or/and organic diseases (Axis III). There are multiple psychosocial problems associated. The result is a worsening in global functioning scale and in the quality of patient's life.

O-05-08

Psycho-social and biological aspects of alcoholism of elderly people in the North of Russia

A. Soloviev, P. Sidorov, A. Garazha. *Northern Medical University Department of Addictology, Arkhangelsk, Russia*

Objective: Systematization of psycho-social and biological biological of alcoholism of elderly people

Methods: The analysis was done of social-biological factors and features of elderly persons alcoholism in the European North of Russia.

Results: The main reasons of elderly persons alcoholism are the "stresses" of an elderly age, namely: - isolation from the society caused by a change of their position in the society, loss of near people, widow(er)hood, solitude; - difficulties caused by reservation of their employment or getting fix up in a new job; - a change in economic conditions caused by a loss of former income, disease or disability; - dissatisfaction with the past or the present, especially because of much free time; - perception of oneself as a category of "unnecessary and inferior persons"; - disappearance of social factors that kept back alcoholization earlier. The important reason providing for alcoholization of elderly people is somatic troubles. Apart from the fact that the disease develops progressively with age physiological changes at the background, it also strengthens and brings new kinds of pathologies peculiar exactly of alcoholism of elderly people.

Conclusion: Alcoholization of elderly people is a serious problem, especially on the territory of Russia for which "the northern type" of drinking alcohol is peculiar. Being formed at the background of certain clinical-social features, alcoholization causes a decrease in life quality and the average life expectancy reduction.

O-05-09

Glial-neuronal Interrelations in motor neocortex of rats genetically predisposed to epilepsy

N. Pasikova, V. Mats, G. Kuznetsova. *IHNA & NP RAS Functional Neuromorphology, Moscow, Russia*

Objective: The present study was undertaken to provide an experimental explanation for known facts suggesting a development of reactive gliosis in head brain of subjects suffering from epilepsy.

Methods: The number of neuroglia and neurons was estimated in motor cortex of Wistar rats predisposed to convulsive audiogenic epilepsy and in motor neocortex of Wag/Rij rats predisposed to non-convulsive absence-epilepsy. The adult animals were placed into the box and treated by standard complex (“multiplex”) sound with a frequency range of 13–85 kHz and mean intensity 50–60 dB for 90 sec. After two months of treating the rats with the intensity convulsive activity were decapitated, brain was fixed and frontal slices of forebrain were stained by Nissle method. A total 16 animals were studied.

Results: There was no statistically significant variation in the number of neurons and satellite glia in brain of Wistar rats in either predisposed or resistant to convulsive audiogenic epilepsy (the treated group or untreated group). However the density of diffuse glia cells or “free” glia in audiogenic rats was greater (11%) than in untreated group. There was no difference in density of glia in corpus callosum. The density of neurons in brain of WAG/Rij rats was higher (24 %) than in brain of Wistar rats (untreated group). There was no difference between the groups in density of glia in motor cortex, whereas the number of glia in corpus callosum of WAG/Rij rats was higher (26,9 %) than in Wistar rats.

Conclusion: The predisposition to epilepsy is correlated with increase in density of neuroglia in motor cortex (Wistar rats) and in corpus callosum (WAG/Rij rats). We propose that gliosis in motor cortex precedes the epilepsy status and provides increased excitability for neurons, their readiness for synchronization of electrical activity due to increased axon myelination.

Wednesday, April 6, 2005

P-17. Poster session: Dementia and child psychiatry

Chairperson(s): Sam Tyano (Petah-Tiqvah, Israel), Michael Rapp (New York, USA)
11.15 - 12.15, Gasteig - Foyers

P-17-01

Developmental outcomes of long-term atomoxetine treatment in ADHD

D. Michelson, T. Spencer, M. Bangs, S. Zhang, D. Ruff, H. Gao, P. Feldman. *Lilly Research Laboratories, Indianapolis, USA*

Objective: The objective is to review development and safety data from patients with attention-deficit/hyperactivity disorder (ADHD) during long-term treatment with atomoxetine.

Methods: Safety is assessed by analysis of adverse events (including discontinuations), vital signs, laboratory data, and electrocardiography. Developmental landmarks are obtained from an integrated database containing information from all company-sponsored ADHD trials lasting 1 year or longer.

Results: Safety results are available for 3262 children and adolescents (6–17 years) exposed to atomoxetine; 425 for more than 2 years. Mean modal dose is 1.4 mg/kg/day. Six percent of patients discontinued due to an adverse event. Commonly-reported adverse events tend to resolve during ongoing treatment. Modest initial elevations in blood pressure and pulse rate are stable during long-term treatment. No clinically meaningful drug effects on cardiac repolarization (QT) are observed. There is a small decrease

in weight gain at 1 year relative to normative expectations, with a return towards predicted rates by 18 months. Neither sexual development nor Wechsler Intelligence Scale-III scores are adversely affected.

Conclusion: During long-term treatment, atomoxetine is safe and well tolerated.

P-17-02

Atomoxetine’s efficacy over time in children and adolescents with ADHD

V. Sutton, D. Milton, D. Ruff, A. J. Allen. *Lilly Research Laboratories, Indianapolis, USA*

Objective: Atomoxetine has been shown to be efficacious for treating attention-deficit/hyperactivity disorder (ADHD) in children and adolescents. Onset of action is demonstrated in 1 to 2 weeks, and greater efficacy is evident beginning at 4 to 5 weeks. The pattern of treatment effect size for the ADHD Rating Scale (ADHD RS) total score over time is presented for 5 trials.

Methods: Study design, except for dose administration, was similar across trials. Children and adolescents with ADHD were randomized into 6- to 9- week, double-blind, placebo-controlled acute treatment. Symptoms were assessed by the ADHD RS. Cohen’s d effect size for the ADHD RS total score was used to describe efficacy in core symptoms.

Results: Nine hundred eighteen (918) children and adolescents were randomized (atomoxetine n=560, placebo n=358). Mean ADHD RS total score reductions were superior for patients randomized to atomoxetine compared to placebo (p<.001 in each study). Effect sizes from baseline to endpoint (LOCF) ranged from 0.6 to 0.8. For by-visit assessments, effect sizes at Week 1 ranged from 0.1 to 0.7 and at the final acute treatment visit ranged from 0.6 to 1.0.

Conclusion: Response to atomoxetine is a function of exposure to treatment, increasing with both time and dose.

P-17-03

An analysis of baseline functional disability in a cohort of employed adult patients with attention-deficit/hyperactivity disorder

L. Levine, R. Tamura, A. Rogers, H. Detke, A. J. Allen. *Lilly Research Laboratories, Indianapolis, USA*

Objective: Baseline data are presented on work productivity in a sample of employed adults with attention-deficit/hyperactivity disorder (ADHD) entering a long-term pharmacotherapy study.

Methods: Subjects were 18–49 years of age, employed for pay ≥20 hours/week, and meeting DSM-IV-TR criteria for both adult ADHD and a historical diagnosis of childhood ADHD, with a current CGI-Severity-ADHD score ≥4. Measures included the Endicott Work Productivity Scale (EWPS), Global Assessment of Functioning (GAF), Conners’ Adult ADHD Rating Scales (CAARS), as well as additional measures of functioning.

Results: Mean weekly working hours were 38.5 (SD 13.8, n=263). Mean EWPS total score was 49.7 (SD 16.6, n=262), higher than both that of a general community sample (22.3, SD 12.9, n=66) and a depressed sample (39.4, SD 17.6, n=35). Patients were moderately symptomatic (mean CGI-S=4.6, SD 0.7; mean CAARS-Investigator-rated=35.2, SD 7.7), with moderate to severe