

**Methods:** The study is part of the Women's Health Study, a prospective population survey of women in Gothenburg, which started in 1968. The participants were re-examined in 1974, 1981, 1992–93 and 2000–2001. Mental disorders were diagnosed according to the DSM-III and DSM-III-R.

**Results:** In 1992–93 (age 70/74) the prevalence of depression was 11.6 %, including 8.4% with major depression (MDD) and 2.8 % with dysthymia. Eight years later (age 78/82) the prevalence was 10.4 %, including 4.6 % (MDD) and 5.6 % with dysthymia. Among those who were currently mentally healthy in 1992–93, 43.0 % had a history of previous depression in 1992–93. Thus the lifetime prevalence was 43.3 % in 1992–93. Women clinically depressed in 1969 had an increased risk of being depressed again in 1992/93 (OR = 5.94 (2.28–14.73)). Those with MDD in 1992/93 continued to show increased risk of depression eight years later (OR = 11.6(3.9–32)).

**Conclusions:** The prevalence of depression continues to be high in elderly women despite new treatment options.

### S23.4

A 15-year follow-up on psychotic symptoms in the non-demented elderly

S. Östling\*, I. Skoog. *Göteborgs University, Institute of Clinical Neuroscience, Psychiatry Section, Sweden*

**Background:** Psychotic symptoms in non-demented elderly are reportedly rare and little is known about the incidence of these symptoms.

**Method:** A representative sample of non-demented 70-year-olds (N=382) from Gothenburg, Sweden were examined in 1971. One-hundred of these individuals were examined both at ages 70 and 85 (response rate among survivors 64%) and are included in this report. Hallucinations and delusions according to the DSM-IV were assessed by a psychiatrist during a semi-structured psychiatric examination at ages 70, 75, 79, 81, 83 and 85. Information was also extracted from key informant interviews and reviews of medical records. Psychotic symptoms which appeared after onset of dementia were not included.

**Results:** One of the non-demented individuals had psychotic symptoms at age 70. During the 15 year follow-up, another 17 (17%) developed psychotic symptoms. Among these, five were diagnosed from the psychiatric examination and 12 from information from key informants or medical records.

**Conclusion:** We found a higher incidence of psychotic symptoms after age 70 than previously believed. It is necessary to have several sources of information to elucidate psychotic symptoms in the elderly.

### S23.5

A 40-year follow-up of patients with obsessive compulsive disorder

I. Skoog, G. Skoog. *Institute of Clinical Neurosciences, Sahlgrenska Academy, Göteborg, Sweden*

Patients admitted to a university hospital for obsessive-compulsive disorder (OCD) in 1947–53 were examined by a psychiatrist in 1954–56 and 1989–1993 (n=144). OCD was diagnosed according to Schneider's criteria, and comorbid psychiatric conditions according to DSM-IV. The mean length of follow-up from onset was 47 years.

At the end of follow-up, 48% had recovered from OCD, but 25% of those were diagnosed with another mental disorder. All OCD patients had some form of comorbid psychiatric condition

during their life-time: depressive disorder in 85% (major depressive syndrome in 44%), panic anxiety disorder in 48%, social phobia in 48%, generalized anxiety disorder (GAD) in 72%, specific phobia in 65%, psychotic disorder in 15%, alcohol abuse in 13% (39% in men) and drug abuse in 17%. Onset of comorbid psychiatric conditions occurred most often after the onset of OCD. Life-time history of GAD, psychotic disorder and drug abuse were related to a worse prognosis of OCD.

Comorbid psychiatric conditions are common in patients with OCD, and includes a wide spectrum of disorders. The onset of these conditions occurs throughout the course of OCD.

### S23.6

Longitudinal study on neurotic disorders in the elderly

J. Copeland\*. *Department of Psychiatry, University of Liverpool, UK*

A random community sample of 1070 subjects aged 65 years and over was interviewed at home using the GMS AGE-CAT package and followed up 3 years later. Neurotic symptoms were common, but symptoms sufficient to reach "case" level were much less frequent. The overall prevalence of neurotic cases was 2.4% in year 0 and 1.4% in year three. The incidence was estimated as a minimum of 4.4 per thousand per year over age 65. Women were more likely to be cases than men but not sub cases, and there was a general decline in prevalence with increasing age, particularly for sub cases. Anxiety was the commonest neurotic subtype. After three years, cases were shown not to persist, but this did not reflect wellness.

## S24. Drug safety – important side effects scarcely noticed in the past

*Chairs:* J. Gerlach (DK), M. Hummer (A)

### S24.1

Osteoporosis in young patients with schizophrenia

W.W. Fleischhacker<sup>1</sup>\*, P. Malik<sup>2</sup>, R. Gasser<sup>3</sup>, R.M. Naveda<sup>4</sup>, M. Hummer<sup>1</sup>. *<sup>1</sup>Department of Biological Psychiatry, Innsbruck University Hospital, Austria*

*<sup>2</sup>Skt. Hans Hospital, Roskilde, Denmark*

*<sup>3</sup>Department of Internal Medicine, Innsbruck University Hospital;*

*<sup>4</sup>Department of Nuclear Medicine, Innsbruck University Hospital, Austria*

A major risk factor for the development of osteoporosis is the decrease in levels of gonadal hormones. Schizophrenia and antipsychotics are associated with significant neuroendocrine changes. Therefore, it is suggested that psychiatric patients might have decreased bone mineral density, and an increased risk for fractures. In a cross sectional study, we investigated the bone mineral density of 75 patients (76 % male, 24 % female) suffering from schizophrenia. The mean age was 34.7 years (range 22–49 years). The duration of antipsychotic treatment was at least one year. We measured bone density (bidual-photon absorptiometry) and several neuroendocrine parameters, and found the following

**Results:** 45.6% of male patients showed osteopenia in the lumbar region, 10.5% suffered from osteoporosis, while 33.3 % of female patients showed osteopenia in the lumbar region, but none had osteoporosis. There was no correlation between the duration of

treatment with antipsychotics increasing prolactin and bone mineral density. Analysing the influence of vitamin D3 level and bone mineral density a significant correlation between the z-scores of the femur ( $r=0.26$ ;  $p=0.048$ ) and the trochanteric area ( $r=0.32$ ;  $p=0.022$ ) was found in male patients.

### S24.2

Sexual side effects lead to low quality of life and non-compliance

J. Gerlach\*. *St. Hans Hospital, Institute of Biological Psychiatry, Roskilde, Denmark*

Antipsychotic medication induces sexual side effects in the form of reduced desire, performance dysfunctions (erectile dysfunction, reduced lubrication) and no orgasm. These side effects are commonly seen among patients treated with antipsychotics (about 40% of females and 60% of males), but – according to a recent study – nurses think that only 8% of the females and 12% of the males have sexual side effects, whereas that the corresponding figures for doctors are 28% and 38%. These figures reflect insufficient knowledge and lack of frankness about an important aspect of life. Such ignorance contributes to non-compliance and thereby to relapse, hospitalization and morbidity.

The mechanisms underlying sexual side effects are not completely understood. They include effects on certain receptors in the brain (dopamine, serotonin, noradrenalin), increased prolactin and mental and motor side effects (emotional dampening, parkinsonism and sedation).

How to prevent and treat sexual side effects? As the dopamine receptor blockade is of central importance, sexual side effects can be minimized by using antipsychotics with a low dopamine receptor blocking effect. Thus quetiapine and clozapine which block less than 60% of the dopamine D2 receptors are primary candidates. Also olanzapine is relatively advantageous compared to other antipsychotics. Potential drugs to counteract the sexual side effect are bromocriptine (to decrease prolactin increase) and sildenafil (to counteract erectile dysfunction).

### S24.3

Schizophrenia and diabetes mellitus

K. Melkersson\*. *Sollentuna Psychiatric Polyclinic & Endocrine Laboratory, Karolinska Hospital, Stockholm, Sweden*

The prevalence of diabetes mellitus (DM) in schizophrenic patients has been reported to be higher than that expected in a normal population (Mukherjee S, et al. *Compr Psychiatry* 1996;37:68–73). This higher rate of DM is probably explained by an increased frequency of type 2 diabetes. Antipsychotic drug treatment, obesity, cigarette smoking and heredity may all be causative factors for type 2 DM in this patient group. Among antipsychotic drugs, clozapine and olanzapine appear to have a direct diabetogenic effect (Melkersson K. Thesis, Karolinska Institutet, 2000), whereas most conventional antipsychotics and other newer agents seem not to primarily cause this type of side effect. Although the exact mechanisms behind the diabetogenic effect of clozapine and olanzapine are still unknown, these agents may induce insulin resistance, which in the longer run can lead to hyperglycemia and DM.

In summary, both antipsychotic drug treatment and other causative factors for diabetes may be involved in the development of DM in schizophrenic patients. Clinical actions to prevent DM and decrease the prevalence in this patient group will be discussed.

### S24.4

Risk of sudden death and putative contributing factors during antipsychotic treatment

J. Reilly\*. *Tees and North East Yorkshire NHS Trust, Parkside Community Mental Health Centre, Middlesbrough, UK*

Sudden unexplained death has been linked with antipsychotic drugs for more than forty years, but the causal nature of the association and its clinical importance have remained in dispute. Ion channel research, electrocardiographic surveys and large scale observational studies increasingly support the proposed mechanism of drug induced cardiac arrhythmia. Work at the University of Newcastle (UK) has shown a differential association between the specific drugs thioridazine and droperidol and QT prolongation, an electrocardiographic predictor of sudden death, and also an association between thioridazine and sudden death itself in psychiatric in-patients. All antipsychotic drugs have some propensity to bind cardiac ion channels, and only further research can show which drugs can be used safely, and which patient groups may be at higher risk.

## S42. Psychiatric rehabilitation in schizophrenia – today and tomorrow

*Chairs:* I.-M. Wieselgren (S), L. Lundin (S)

### S42.1

The epidemiological basis for rehabilitation in schizophrenia

P. Munk-Jørgensen\*. *Institut for Psychiatric Demography, Psychiatric Hospital in Aarhus, Denmark*

After having been on the decrease from the early 1970s until the late 1980s in all of the western world the treated incidence of schizophrenia has now been increasing for approximately 10 years. Consequently, the annual incidence is now at the same level as 30 years, around 20 per 100,000 total population. What has become clear is the discouraging fact that decentralization of psychiatry and social psychiatric treatment has severely failed to improve treatment adherence, resulting in drop-out rates from treatment between 30% and 50%. Therefore, it hardly gives any meaning to invest further resources in psychiatric rehabilitation of schizophrenia until psychiatric services will become able to keep the schizophrenic patients in contact with the services. It might be a hope that modern neuropsychiatric treatment including e.g. psycho-social cognitive treatment and cognition psychology will be able to remedy the damages that the last twenty years' one-sided attempt to social rehabilitation has caused, losing a substantial part of the schizophrenic patients without treatment

### S42.2

Rehabilitation with focus on cognitive training

L. Lundin\*. *Sahlgrenska University Hospital, Göteborg, Sweden*

A strong correlation between cognitive dysfunction and difficulties in every day life has been established in patients with schizophrenia. Research is accumulating showing that patients with impairment in intermediate memory have hard to follow instructions; persons with executive difficulties have trouble organising their daily routines and that an impaired mind-reading ability gives social dysfunction. This research is renewed.