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

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Antipsychotic medication induces sexual side effects in the form of reduced desire, perform-ance 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 advanta-geous compared to other antipsychotics. Potential drugs to counteract the sexual side effect are bromocryptine (to decrease prolactin increase) and sildenafin (to counteract erectile dys-function).

S24.3

Schizophrenia and diabetes mellitus

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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

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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

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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 reweved.

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