

to assess the in vivo inhibition potential of risperidone towards CYP3A4, as an inhibition of CYP3A4 by risperidone could, at least partially, explain the case reports describing an increase of clozapine concentrations following the introduction of risperidone.

- (1) Koreen AR et al., *Am J Psychiatry* 1995; 152: 1690
 (2) Tyson SC et al., *Am J Psychiatry* 1995; 152: 1401–2

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FOLLOW UP STUDY OF ATYPICAL ANTIPSYCHOTICS FOR PATIENTS WITH PSYCHIATRIC DISORDERS AND INTELLECTUAL DISABILITY

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Aims: To evaluate clinical outcome of the use of atypical antipsychotics for patients with psychiatric disorders and intellectual disability one year after commencing treatment.

Method: All patients included in the initial study and having been commenced on either Risperidone or Olanzapine were followed up one year later. Data were collected prospectively on a specifically designed questionnaire. Clinical outcome was measured by the Clinical Global Impressions scale (CGI).

Results: Twenty-one patients who were commenced on an atypical antipsychotic were followed up one year later. Further 16 subjects were added to the initial sample making a total number of 37 (20 on Olanzapine and 17 on Risperidone). Both atypical antipsychotics were well tolerated in the one year follow-up and patients maintained their clinical improvement. More detailed analysis of the results will be presented.

Discussion: This is an open prospective one-year follow up naturalistic study of the use of atypical antipsychotics in adults with intellectual disability. Although the study is limited by the small number of cases, there have been very few studies of the use of atypical antipsychotic in the adult intellectually disabled population and we are not aware of a follow up study of such a long duration.

- (1) Williams H., Clarke R., Bouras N. and Holt G. (2000): Use of atypical antipsychotics olanzapine and risperidone in adults with intellectual disability. *Journal Intellectual Disability Research*, 44.

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10 YEAR FOLLOW UP OF A SCOTTISH SCHIZOPHRENIA COHORT

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Between 1988 and 1990, 161 long stay psychiatric in-patients were identified in Gartnavel Hospital, Glasgow of whom 91 fulfilled DSM-IV criteria for schizophrenia. A detailed psychiatric assessment was carried out which was repeated in 1999 following a decade of discharges and resettlement in the community. Measures included the BPRS and Krawiecka Scales (psychopathology), AIMS, Simpson and Angus and Barnes Scales (movement disorder) and a rehabilitation assessment (Morningside). 46 patients were re-assessed of whom 23 remained as in-patients. 32 of the original cohort had died. The 3 commonest causes of death were heart disease cancer and pneumonia, accounting for 85% of the mortality. The BPRS scores were unchanged ($t = -0.38$, $p = 0.70$). The level of positive and negative symptoms also remained unchanged ($p = 0.73$ and 0.83 respectively). There was a significant reduction in

parkinsonian side effects, with Simpson and Angus scores declining from a mean of 6.43 (± 7.01) to 1.52 (± 0.64) ($t = 3.40$, $p = 0.001$). This may reflect the change to an atypical antipsychotic in 24.5% of patients (including 75% of the hospital patients). These outcomes will be compared with other similar studies.

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TRAINING MODEL IN PSYCHOTHERAPY FOR GENERAL PHYSICIANS

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Training model for general physicians in psychotherapeutic approach will be described. Psychotherapeutic approach is an integration of psychotherapy with somatic medicine. Our model of training expand the clinical experience of general physicians in managing the psychosocial problems of patients. One of the main topics of our training model is doctor-patient interviewing and Balint groups. Our experiences and results from the period of 15 years will be summarized.

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WEIGHT GAIN WITH ANTIPSYCHOTIC MEDICATION – TWO YEARS FOLLOW UP STUDY

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In Slovakia obesity is not as common as in United States /USA- obesity 31% men, 35% women according to body mass index/. Weight gain in adulthood and overweight on the other hand are highly frequent /Slovakia-overweight 48% men, 31% women/.

For most patients treated with antipsychotics the crucial period for weight gain is the acute treatment phase. Over period of 12 weeks treatment 57% of our patients gained 5–10% of their initial body weight, 30% gained less than 5% and 13% lost or did not change their initial body weight. Type of antipsychotic was not considered.

The aim of our present open and prospective study was to evaluate changes in body weight over period of two years of antipsychotic treatment.

57 patients with diagnosis of schizophrenia and delusional psychotic disorder were involved. Their weight was measured 12 times a year. Patients were distributed to cohorts according to weight gain more than 10%, 5%, up to 5%, no change or decrease of initial weight. Than type of antipsychotic medication was considered.

There was a significant weight gain with typical antipsychotics. Most patients gained up to 5%. There were only 2% patients that become obese according to body mass index. Most patients still remained in overweight level.

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THE IMPACT OF HUNTINGTON'S DISEASE ON CAREGIVERS: THE CZECH EXPERIENCE

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Background: Personal, social, economical problems of CG of patients with HD and their consequences are often ignored by physicians and not accepted for intervention and support.

Design/Methods: 21 CG (4 wives, 8 husbands, 7 daughters, 1 mother, 1 son) were investigated by means of structured interview

using the questionnaire. Following main topics were evaluated: a. problems with getting adequate information about HD in early stages of the disease, b. main problems connected with the diagnosis itself, c. cooperation and communication with physicians, d. clinical symptoms of HD most severely affecting the life of CG, e. information about the existence of HD support group and f. the usefulness of HD support group for CG.

Results: 14/21 CG had severe problems with getting adequate information about HD in the early stage of HD, while 7/21 had enough information. The risk of HD for their children was found to be the main problem connected with the diagnosis itself. Other main problems were how to explain the risk of HD to their children and the incurable character of HD. Cooperation and communication with physicians were reported as very problematic in 15/21 CG, whereas 6/21 had good experience with physicians. The insufficient interest in family and social problems and almost no contact with partners and CG were reported to be the main controversy. Behavioral and affective changes were reported as most severe symptoms of HD in 12/21 CG (aggression in 12/21, depression in 7/21 and sexual disturbances in 3/21), symptoms of dementia in 10/21, dysarthria in 7/21, involuntary movements and/or gait disorders in 3/21 CG. The information about the existence of HD support group among physicians and medical services was found to be insufficient in 16/21 CG. The usefulness of HD support group was found to be extremely important for all CG, even more important than medical services.

Conclusions: What should be done: a. to accept CG as a client and a patient, b. to be aware that CG need sometimes the medical help and always social and psychotherapeutical support, c. to educate physicians and medical services about problems, connected with the character of HD and about the impact of HD on CG, d. to improve the knowledge and the information about HD support group among physicians and medical services and e. to force authorities to work actively in the field of family and social support of HD.

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AUTONOMIC NEUROCARDIAC REGULATION (ANR) IN PATIENTS WITH MAJOR DEPRESSION AND EFFECTS OF ANTIDEPRESSIVE TREATMENT WITH REBOXETINE

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Background: There is growing evidence that major depression (MD) is associated with disturbances in autonomic neurocardiac regulation (ANR). Moreover, antidepressants from various classes distinctly influence ANR depending on the extent to which anticholinergic and/or anti-adrenergic effects are exerted *in vivo*. Reboxetine is the first selective noradrenaline re-uptake inhibitor. Its action on ANR in man remains to be established.

Methods: 25 strictly selected, untreated patients with MD (DSM-III-R) and a minimum of 18 points on the Hamilton Depression Scale (HAM-D) were recruited. Exclusion criteria were the presence of any disease known to affect ANR (e.g. diabetes mellitus, coronary heart disease, drug abuse, alcoholism). ANR was assessed using standardized measurements of the 5-min resting heart rate variability (HRV). Reboxetine was started with 4 mg/d; after 10 days the dose was increased to 8 mg/d. Repeated HRV studies were performed before (baseline) and after 2, 10 and 21 days of treatment, respectively.

Results: Serial HRV recordings (n = 100) showed that reboxetine (4–8 mg/d) did not reduce the vagally mediated HRV-indices both, in the time domain (CVr, RMSSDr) and frequency domain (HF-power) analysis. Compared to baseline there was a significant decrease of the low frequency bands (absolute and relative values) and the mean LF/HF ratio (p < 0.05), which occurred even after 2 days of treatment. Reboxetine (4–8 mg/d) did not influence ECG time relations; in particular, the mean QTc- and PQ-conduction times remained obviously unchanged during treatment.

Discussion: Our results indicate that reboxetine (4–8 mg/d) had no anticholinergic properties *in vivo*. The decrease of both, the relative and absolute LF-power in combination with a decrease of the LF/HF ratio, suggest a reduction of efferent sympathetic nerve activity, possibly due to a centrally mediated inhibition of reticular neurons.

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EFFECTS OF SILDENAFIL (VIAGRA®) ON CARDIOVASCULAR AUTONOMIC FUNCTION (CAF) IN MAN: PRELIMINARY RESULTS

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Background: In patients with psychiatric disorders treatment with psychopharmacological agents often causes various sexual dysfunctions. In particular, in males erectile dysfunction is one of the most frequently reported reasons for discontinuation of neuroleptics or antidepressants. It is well known that these drugs exert distinct influence on CAF, which in part may limit their cardiovascular safety, especially when multiple drugs were combined. Standardized measurement of heart rate variability (HRV) allows a quantitative assessment of the CAF *in vivo* (1). The effects of sildenafil on HRV have yet never been investigated. Thus, it is still unclear whether in psychopharmacologically treated patients with sexual dysfunction cardiovascular complications would arise which might result from a sildenafil triggered synergistic amplification of autonomic dysfunction. Therefore studies are needed to clarify the effects of sildenafil on CAF in detail.

Methods: This study is still ongoing; 15 men (planned n = 30), who received sildenafil from their urologists because of erectile dysfunction, had been recruited. The CAF test-battery included standardized measurements of the HRV during 5-min resting (1) and during deep-breathing, the 30:15 ratio, a modified Schellong-test and serial conventional ECG recordings at rest and during ergometric exercise (75 Watt) over a period of at least 10 minutes. The test-battery was repeated about 90 minutes after the patients had received a single oral dose of sildenafil (25–75 mg).

Results: Although upon questioning patients reported that they were in good physical health and fitness, detailed examination disclosed the presence of multiple somatic diseases (prior myocardial infarction, coronary heart disease, diabetic autonomic neuropathy, arterial hypertension). There is no preliminary evidence that sildenafil alters the HRV or any other of the ECG parameters in the healthy as well as in the medically ill subjects.

(1) Task Force. Heart rate variability. *Circulation* 1996; 93: 1043–1065.