Results: Under low glucose, as compared with the blank control group, inhibitive effect on [Ca2+]i in cells was found in clozapine group and desmethyl-clozapine group respectively ($P<0.01$); As compared with the base line(0min), [Ca2+]i in cells was decreased according to the prolonging of time in clozapine group and desmethyl-clozapine group ($P<0.05$; 0.01), and the inhibitive effect of clozapine was more intensive than desmethyl-clozapine ($P<0.01$). Under high glucose, as compared with the blank control group, inhibitive effect on [Ca2+]i in β-cells was also found in clozapine group and desmethyl-clozapine group respectively ($P<0.01$); As compared with the base line(0min), [Ca2+]i in cells was also decreased according to the prolonging of time in clozapine group and desmethyl-clozapine group ($P<0.05$; 0.01), but the inhibitive effect of desmethyl-clozapine was more intensive than clozapine ($P<0.01$). However, no effect was found in clozapine N-oxide group under low or high glucose ($P>0.05$).

Conclusion: Clozapine and desmethyl-clozapine both inhibit [Ca2+]i in cells of isolated rat islets so that they can inhibit insulin secretion.

Key words: Clozapine; Biotransformation; Islets of Langerhans; Calcium

P0281

Prevalence of neuroleptic-induced movement disorders in psychotic patients within peripheral New Zealand mental health services: Ethnic variation

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Background and Aims: This study investigated the point prevalence of extrapyramidal movement disorders in patients with chronic schizophrenia and related disorders who are currently treated by Northland District Health Board (DHB) mental health services, New Zealand. The study also investigated evidence of variation in the point prevalence of these disorders based on the ethnicity of the patients (indigenous Māori patients and non-Māori).

Methods: 151 patients, who had received antipsychotic medication for 3 months or more, were recruited as participants for the study using randomised computer software. Ethnicity was documented using self-identification. Akathisia was assessed using the Barnes Akathisia Rating Scale (BARS). The Abnormal Involuntary Movement Scale (AIMS) was used to assess tardive dyskinesia and extrapyramidal side effects (EPSE) were assessed by the Simpson-Angus Rating Scale (SAS).

Results: 9.3 % had akathisia using Barnes scale, 43% had Parkinsonian symptoms on SAS scale, and 18.5 % had tardive dyskinesia using AIMS scale. The analysis failed to show any statistically significant differences based on ethnicity (indigenous Māori and non-Māori). $P = 0.284$, 0.176, and 0.201 for Barnes, SAS and Aims respectively.

Conclusions: The findings suggest that the prevalence of neuroleptics-induced movement disorders in psychotic patients within Northland DHB (9%-43%), is similar to the documented international figures. These findings also indicate that there is no significant difference based on ethnicity between Māori and non-Māori in terms of movement disorders profile.

P0282

Association of venous thromboembolism and olanzapine

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Aims: Venous thromboembolism (VTE) has been associated with the diagnosis of a psychiatric disease, as well as with the treatment with psychotropic drugs. Recent reports suggest an association between several atypical antipsychotics agents (eg. olanzapine) and an increased risk for VTE.

Methods: We prospectively analysed and consequently followed-up olanzapine users in a cohort of 138 consecutive patients under 60 years of age (male=72, mean age 45 years) suffering from objectively confirmed VTE over a three-year period (2004 - 2006). Data on known acquired or genetic risk factors for VTE were recorded for each patient.

Results: Four Caucasian patients (one female, three males; mean age 49 years, range 37-55 years) with spontaneous VTE treated with olanzapine were registered. Two patients were obese. The hospitalization was extended in the female patient. We found coagulation abnormalities in all our subjects (elevated levels of factor VIII:C, mild hyperhomocysteinemia, FV Leiden and prothrombin gene G20210A mutations).

Conclusions: These cases indicate that VTE might be associated with the use of olanzapine, at least in the presence of several acquired or inherited risk factors such as immobilization, obesity and disorders of coagulation homeostasis including factor V Leiden, prothrombin gene G20210A mutations, high levels of factor VIII and hyperhomocysteinemia. Subjects treated with olanzapine should be monitored clinically for VTE. Interestingly, in three patients symptoms occurred in the first six months of olanzapine treatment.

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P0283

Atypical antipsychotics in epilepsy

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Epilepsy is a neurological disease, always associating psychiatric troubles; these last ones can be permanent – unstable affect, dementia, or transient – delusions, hallucinations. Treatment in these patients is often difficult, because many antipsychotics may determine motor seizures and/or electroencephalographic changes.

Method: We considered a sample of 35 epileptic patients (21 male and 14 female) with psychotic features, treated with specific antiepileptics and atypical antipsychotics (risperidone, olanzapine, quetiapine). It is well known that DA mediators partially inhibit motor seizures.

Results: During one year, none of our patients related any increase of the frequency of seizures. Also, we did not highlight electroencephalographic changes in this period. Clinically, patients were assessed using PANSS scale.

Conclusion: Atypical antipsychotics can be safety utilized in patients with epilepsy, ascertaining a good control of psychotic features, without worsening neurological symptomatology.

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