

Aims To compare the threshold for sweet (test) and salt (control) after 1 and 4 weeks of SSRI escitalopram therapy in depressed patients.

Methods The project was approved by the institutional ethics committee. Following informed consent, depressed patients were initiated on escitalopram 10 mg/d (increased to 15 or 20 mg, if required after 1 week). Taste recognition threshold, intensity and pleasantness were measured for sweet and salt. Each tastant was made –1 to –3 (100 mM–1 mM). Regional recognition thresholds were determined at the tip of the tongue using a cotton bud well soaked in the tastant.

Results Three males and 4 females of mean ages 39.1 years completed the study. There was significant shift to the left for sweet thresholds between days 0 and 7, and 7 and 28 [F(Dfn, Dfd)=9.242 (4.162) $P < 0.0001$]. A similar shift to the left was seen for salt but day 7 only [F(Dfn, Dfd)=6.213 (4.162)].

Conclusion The increase in serotonin throughput as envisaged through SSRI treatment was paralleled by decrease in sweet thresholds.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0771

Metabolic outcomes of Red yeast rice administration in patients treated with second-generation antipsychotics

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Rationale Second-generation antipsychotics (SGAs) are notoriously associated with a wide range of metabolic adverse effects, and their chronic use is related with an increased risk for the development of metabolic syndrome (MS). The nutraceutical approach to the management of MS might be a promising strategy in the prevention of cardio-metabolic risk. In this context, Red yeast rice (RYR) have been shown to have a lipid lowering effect in an increasing number of clinical studies.

Objectives The present study was aimed to explore the efficacy and safety of RYR treatment on metabolic parameters in a sample of subjects receiving atypical antipsychotics.

Methods Ten outpatients treated with atypical APs assumed RYR at single daily dose of 200 mg/day for 30 days. Total cholesterol, high-density lipoprotein cholesterol (HDL), low-density lipoprotein cholesterol (LDL), triglycerides, fasting levels of glucose, and glycated hemoglobin were determined.

Results RYR administration non-resulted in a statistically significant reduction of metabolic parameters in the study sample. However, a trend for total cholesterol (T0 vs. T1: 159.6 vs. 145.6) and LDL (T0 vs. T1: 94.1 vs. 77.6) decrease was observed.

Conclusions Our findings in patients receiving atypical antipsychotics did not confirm the beneficial effect of RYS on lipemic profiles previously found in subjects who do not take this class of drugs. Further clinical trials with adequately-powered and well-designed methodology are needed to better explore the RYS effectiveness on the SGAs-induced metabolic side effects.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0772

Preserved cognition and reduced age-related cognitive decline during treatment with angiotensin II receptor blockers: A 20-year follow-up study

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Introduction Modulators of the brain renin-angiotensin system (RAS) have been shown to improve cognitive functioning in several animal models of neuropsychiatric disorders. Moreover, the brain RAS has been considered a new target for the treatment of Alzheimer's disease (AD). However, there are no population-based follow-up studies supporting this hypothesis.

Objectives Cross-sectional and prospective relationships between cognitive decline and ARB treatment were examined in the population-based Kuopio Ischemic Heart Disease Risk Factor Study.

Aims To evaluate procognitive/antidementia capacity of orally delivered angiotensin II receptor blockers (ARB).

Methods The study was conducted on a sample of 1774 subjects (920 females, 854 males; age range at baseline: 42–61 years) from Eastern Finland. An established cutoff score of at least 2-point decrease in the Mini Mental State Examination over a 9-year follow-up was used to detect age-related cognitive decline in the cross-sectional setting. In the prospective setting, a hospital discharge diagnosis of dementia/AD was used as outcome variable. Cross-sectional relationships were determined with logistic regression and prospective analyses were conducted with the Cox proportional hazards model (both adjusted for relevant background variables).

Results Cross-sectional analysis displayed a decrease of the odds of cognitive decline ($n = 87$; 4.9% of participants) in those with ARB treatment; OR = 0.445, 95% CI: 0.22–0.90, $P = 0.024$. Furthermore, in the prospective setting, the risk of dementia/AD diagnosis ($n = 149$; 8.4% of participants) was significantly reduced in ARB treated participants; HR = 0.621, 95% CI: 0.40–0.98, $P = 0.038$.

Conclusions ARB treatment is associated with a decreased risk for age-related cognitive decline and dementia/AD manifestation.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0773

The effect of Qing Huan Ling on the hypoglutamatergic schizophrenia model in mice

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Objective To investigate the effect of Qing Huan Ling and (or) risperidone on activity and preferences behavior of the hypoglutamatergic schizophrenia model in mice.

Methods Seventy kunming mice were randomly divided into 5 groups, one group as placebo group. The rest groups intraperitoneal injection MK-801 continuously 14 day, then randomly numbered: model group, Qing Huan Ling group, risperidone group and Qing Huan Ling combined risperidone group. Intra-gastric administration give corresponding drugs for each group one month, at the same time observe high activities and changes in the preferences of five groups.

Results Compared with the blank group, activity of the rest model groups induced by MK-801 was increased ($P < 0.05$). After intra-gastric administration one month, model groups of high activity was decreased, especially risperidone combined Qing Huan Ling group. There was no statistical meaning in inquiry activity of five groups ($P > 0.05$). Compared with model group, latent period of step-through test was prolonged 35.5 s ($P < 0.05$), of step-down test was prolonged 11.4 s in risperidone combined Qing Huan Ling group.

Conclusion The combination of Qing Huan Ling and risperidone can suppress the high activity; also can protect harmed memory of the preference behavior in the hypoglutamatergic schizophrenia model in mice.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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e-Poster Walk: Psychosurgery & stimulation methods (ECT, TMS, VNS, DBS) and psychophysiology

EW0774

Description of anesthetic drugs used in hospital del Mar and their impacts on convulsion duration and blood pressure in electroconvulsive therapy

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Introduction The electroconvulsive therapy (ECT) is an effective treatment used for several psychiatric disorders. However, there are multiple enigmas about the mechanisms of action and factors that improve its results. Some frequent questions are if the anesthetic drug makes a difference in the time of convulsion and blood pressure.

Aims Our principal aim is to describe the utilization of anesthetic drugs among the patients that are being treated with ECT in hospital del Mar. We also want to know the differences in the time of convulsion and systolic arterial pressure for every anesthetic drug (propofol, thiopental and etomidate).

Material and methods We have used the database of ECT in hospital del Mar. It contains information like age, principal diagnosis, medical background and pharmacological treatment at the moment of starting ECTs; it also contains information of each indi-

vidual ECT session as basal, 2 and 5 minutes arterial pressure; the anesthetic drug used, and convulsion duration.

We made an analysis of general conditions of the population, the differences of convulsion time and arterial pressure between the three anesthetic drugs.

Results Propofol was used in 1140 sessions, thiopental in 61 sessions and etomidate in 54 sessions. The differences in the means of convulsion times between propofol and etomidate are statistically significant ("P" value < 0.05). Etomidate or thiopental increases the difference of arterial pressure more than propofol.

Conclusions Further research about the factors that improve convulsion duration and minimize adverse effects on blood pressure is needed.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0775

An evaluation of the use of electroconvulsive therapy in a United Kingdom high secure psychiatric hospital

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Introduction Electroconvulsive therapy (ECT) is an effective NICE-approved treatment for severe depression, treatment-resistant mania and catatonia; the Royal College of Psychiatrists' (RCPsych) guidelines also support its use fourth line for treatment-resistant schizophrenia.

Objectives Evaluate the use of ECT at Broadmoor High Secure psychiatric hospital, focusing on the indications for its prescription and patients' capacity to consent.

Method Analyse case records of all patients who received ECT, and of all patients referred for Second Opinion Appointed Doctor (SOAD) certified ECT treatment under Section 58 of the Mental Health Act 1983 (MHA) due to incapacity, between 01.09.11 and 30.07.15.

Results All patients lacked capacity to consent to treatment during this time. Thirty-three referrals were made to the SOAD service for 15 patients, and of these 30 resulted in certification (T6) of which 10 were not subsequently used. Improvements in mental state and agreement to take clozapine were common reasons for T6s either not being certified or used. Urgent treatment under Section 62 of the MHA was employed 7 times for 4 patients during this period. Of the referrals to the SOAD service, 25 were for treatment-resistant schizophrenia, 5 for mania, 3 for catatonia and none for depression.

Conclusions Those patients requiring ECT within this population tended to be the most unwell and all lacked the capacity to consent to it. The majority (76%) of patients receiving ECT at Broadmoor do so outside of NICE (but within RCPsych) guidelines. ECT may be an effective strategy for promoting compliance with clozapine.

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EW0776

Predictive response factors of repetitive transcranial magnetic stimulation in treatment-resistant depression

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