

Method A systematic review. We searched PubMed, EMBASE and Web of Science for the keywords “infectious diseases”, “research and development” and “pharmaceutical industry”.

Preliminary results The searches gave a total of 248 references. Among the findings, we want to highlight the Drugs for Neglected Diseases initiative (DNDi) and the WHO Research and Development Treaty (R&D Treaty). DNDi is a non-profit organization that has developed six new drugs since 2003. The development costs were €150 millions per drug, which is considerably below the costs for drug development claimed by the pharmaceutical industry. The R&D Treaty will commit member states of the WHO to fund development for neglected health needs using alternative incentives like milestone prizes, patent pools and direct grants. The treaty has not yet been agreed upon.

Conclusions Though a low priority from the pharmaceutical industry, other funding models have proven able to deliver new treatments. This could also lead to more development of non-patentable treatments, e.g. psychotherapy.

Disclosure of interest The author has not supplied his/her declaration of competing interest.

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2005>

EV1021

Clinical and socio-demographic characteristics of a sample of outpatients with long-acting injectable antipsychotic treatment

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Introduction There are relatively few studies of Long-acting injectable antipsychotics (LAI), although poor adherence to treatment is one of the main problems in patients with psychotic disorders.

Objectives The aim of the study is to describe socio-demographic and clinical characteristics of a sample of outpatients with LAI treatment.

Methods This is a cross-sectional study. A randomized sampling was performed among the outpatients that were receiving LAI in an outpatient clinic in Barcelona (Spain). For each patient, socio-demographic, clinical and pharmacotherapeutic data were collected through interviews and clinical history.

Results The sample consisted of 30 subjects (50% men, average age 48 years). Most of the patients in the sample have basic education (50%) and are unemployed, receiving permanent disability pension (39.3%). In addition, 44.8% of the subjects were living with family members and were not married (56.7%). Of the patients, 70% were diagnosed with schizophrenia, 13.3% schizoaffective, 10% bipolar and 6.7% delusional disorder. The main reason to initiate LAI treatment was due to non-compliance of the prescribed oral treatment (85.7%). The 40% of patients were also with oral antipsychotic treatment. Average punctuation in the 3 first items of the Scale to Assess Unawareness of Mental Disorder: 11. Average punctuation in the short version of the Simpson-Angus Scale: 1.68.

Conclusions In our sample, the outpatients with LAI treatment had a low functioning and disease awareness. Although the main reason to start LAI is the non-compliance, 40% of the patients were concurrently treated with oral antipsychotics. The extrapyramidal side effects are mild.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2006>

EV1023

Aripiprazole is effective for the improvement of psychotic symptoms in patients with dementia with lewy bodies

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Objective Dementia with lewy bodies (DLB) is commonly considered the second most common form of dementia. The purpose of this study is to investigate the treatment effects of aripiprazole in patients with DLB.

Methods Eleven patients who had met the criteria for DLB participated in this study. The presence of psychotic symptoms was confirmed by scores of either the delusions or hallucinations items of the Neuropsychiatric Inventory (NPI) score. Patients who had 25 or more on the Mini-mental State Examination Scale (MMSE) at the entry or having brain damage were excluded. Aripiprazole was initiated at a low dose (3 or 6 mg/day) and titrated to higher doses at 2-weeks intervals or more rapidly based on investigator's judgment. Previous medications prior to aripiprazole administration were not changed through this trial. Patient's clinical status was assessed at baseline, then 2 weeks during the study by using NPI, Clinical Global Impression (CGI) and Brief Psychiatric Rating Scale (BPRS) to measure psychotic behavioral symptoms, and Simpson-Angus Scale (SAS) to measure parkinsonism symptoms. Clinical Dementia Rating (CDR) and MMSE were carried out at screening and end point to evaluate cognitive function.

Results The mean scores of the SAS and CDR were significantly decreased at the study endpoint compared to baseline. The mean scores of the NPI and BPRS improved up until 4 weeks after having started aripiprazole. After 4 weeks, improvements slowed. The mean score of the CGI-S was decreased up until 8 weeks.

Conclusion This study shows that aripiprazole may be effective for the treatment of psychotic symptoms in patients with DLB.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2008>

EV1024

Tropicamide eye drops reduce clozapine-induced hypersalivation: A case report

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Introduction Clozapine-induced sialorrhea (CIS) is a common, treatment-limiting and stigmatizing side effect. All systemic agents that are used for hypersalivation may increase clozapine side effects such as blood pressure changes, constipation, or arrhythmias. Oral application of topical anti-muscarinic agents may be a low side effect option for treatment of CIS.

Objective The aim of this case report was to propose an off-label treatment of tropicamide drops to CIS and to stimulate further investigation.

Case report A 33-year-old male inpatient with schizophrenia has been on clozapine 800 mg and amisulpride 600 mg/day. His drooling was occasional and severe as drool drips off his chin during the day and night. Wet area over the pillow, visual analog scale (VAS), the short form of health survey (SF-36), UKU side effect rating scale, scale for the assessment of negative symptoms (SANS), scale for the assessment of positive symptoms (SAPS) were applied at baseline and in one-week intervals. Oral application of one drop of tropicamide % 0.5 (5 mg/mL) to left and one drop to right side

before going to bed in the first week and two drops to each side were administered subsequently. Informed consent was given by the patient.

Results No psychological, neurological, autonomic and other side effects were observed associated with tropicamide. On VAS, the patient rated hypersalivation 5/7 at baseline, 4/7 after one drop each, 3/7 after two drops each.

Conclusions The reduction of CIS by oral use of tropicamide eye drops is promising and should be explored with randomized controlled trials.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2009>

EV1025

The therapeutic potential of natural compounds against Alzheimer's disease: A preclinical pharmacological study in both sexes

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Alzheimer's disease (AD), a neurodegenerative neuropsychiatric disorder, is often comorbid with depression and anxiety. Neuropsychiatric disorders are also characterized by sex differences. However, most preclinical pharmacological studies are conducted using only males. Herein, we used male and female twelve-month-old mice (3xTg) expressing mutated forms of human proteins Tau, APP and Presenilin1. These mice are considered a valid animal model of AD. We investigated the effects of the natural compound trans-crocin-4 (TC-4), which is derived from *Crocus sativus* and the olive compound oleuropein on the cognitive, depressive and anxious profile of 3xTg mice. We found that male and female 3xTg mice exhibited reduced locomotor activity and oleuropein treatment (100 mg/kg i.p., for 21 days) did not reverse this phenotype. In addition, anxiety- and depressive-like behaviors were not affected by genotype, sex or oleuropein treatment. Interestingly, oleuropein exhibited a tendency to enhance cognitive performance in male 3xTg mice. Treatment with TC-4 (50 and 150 mg/kg, i.p., acutely or chronically for 10 days) affected locomotor activity in a sex-differentiated manner. Interestingly, acute TC-4 clearly enhanced cognitive performance in all groups although it reduced center entries in the open field. Additionally, chronic TC-4 treatment enhanced novel object discrimination mainly in male 3xTg mice. Our findings highlight the potential of those natural compounds, which warrant further investigation but also emphasize the benefits of including both males and females in preclinical pharmacological studies.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2010>

EV1026

A comparison of risperidone and olanzapine in the acute treatment of persistent delusional disorder: Data from a retrospective chart review

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Introduction There is a lack of pharmacological trials studying drug response in Persistent Delusional Disorder (PDD) to guide clinical practice. Available reviews of retrospective data indicate good response to second-generation antipsychotics, but even such data from India is sparse.

Objectives and aims We aimed to compare the response of acute PDD to risperidone and olanzapine in our retrospective review.

Methods We conducted a retrospective chart review of patients diagnosed with PDD (ICD-10) from 2000 to 2014 ($n=455$) at our Center. We selected the data of patients prescribed either olanzapine or risperidone for the purpose of this analysis. We extracted data about dose, drug compliance and response, adverse effects, number of follow-up visits and hospitalizations. The study was approved by the Institute Ethics Committee.

Results A total of 280/455 (61%) were prescribed risperidone and 86/455 (19%) olanzapine. The remaining ($n=89$; 20%) had received other antipsychotics. The two groups were comparable in socio-demographic and clinical characteristics of PDD. Compliance was good and comparable in both groups ($>80\%$, $P=0.2$). Response to treatment was comparable in both groups (85% partial response and $>52\%$ good response, all $P>0.3$). Olanzapine was effective at lower mean chlorpromazine equivalents than risperidone (240 vs. 391, $P<0.05$).

Conclusion Our study indicates a good response to both risperidone and olanzapine, if compliance to treatment can be ensured. In the absence of specific treatment guidelines for PDD, second-generation antipsychotics like risperidone and olanzapine offer good treatment options for this infrequently encountered and difficult to treat psychiatric disorder.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.2011>

EV1027

Effects of typical and atypical antipsychotics on spontaneous neuronal network activity in vitro

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Introduction Microelectrode arrays (MEAs) with cultured neuronal networks are highly suitable to quantify neuroactive activity and neurotoxicity of applied substances.

Objective Multiparametric characterization of functional alterations of in vitro-neuronal network activity by different typical and atypical antipsychotics.

Aims To identify differential effects of antipsychotics on spontaneous neuronal network activity as a functional readout.

Methods Cultured networks of dissociated cortical cells of post-partial mice coupled to MEAs were exposed to increasing doses of aripiprazole, clozapine, haloperidol, olanzapine, raclopride, and risperidone.

Results We found a concentration-dependent inhibition of firing patterns for all substances except olanzapine. All other substances