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doi: 10.1192/j.eurpsy.2025.767

Introduction: There is an increasing emphasis on incorporating sex differences into mental health research [Galbally *et al.* CNS Drugs 2024; 38(7):559-570; Ercis *et al.* J Affect Disord. 2024; 352:171-192]. Reports on evaluating sex-related differences in risperidone efficacy are limited [Galbally *et al.* CNS Drugs 2024; 38(7):559-570]. Recently, Risperidone ISM (Risp-ISM), a monthly long-acting injectable (LAI) formulation has been authorised in Europe, USA and some other countries.
Objectives: To assess potential sex-related differences in the short-term efficacy of Risp-ISM LAI in adults with schizophrenia [Correll *et al.* NPJ Schizophr. 2020; 6(1):37].
Methods: Post-hoc analysis of a double-blind (DB), randomised, placebo-controlled, 12-week study conducted in participants with acutely exacerbated schizophrenia (NCT03160521). Data from the Clinical Global Impressions-Severity (CGI-S) rating scale were analysed by sex to reveal potential differences in efficacy versus placebo. The data were analysed within three separate study groups: 75 mg Risp-ISM, 100 mg Risp-ISM and placebo using a mixed effect with repeated measures model (MMRM). Herein, CGI-S scores changes from baseline (the key secondary efficacy endpoint) are shown.
Results: In the double-blind phase, 437 eligible participants were randomly assigned 1:1:1 to receive Risp-ISM 75 mg, 100 mg or placebo every 28 days. 144 (33%) were female and 293 (67%) male. Analysis showed no sex-related differences on CGI-S scores. Decreases from baseline (Figures 1 and 2) were significantly greater versus placebo at Day 8 (after first injection) and beyond in both male and female subgroups at the 100 mg Risp-ISM dose; likewise, at Day 15 and beyond for the 75 mg Risp-ISM dose.

Image 1:

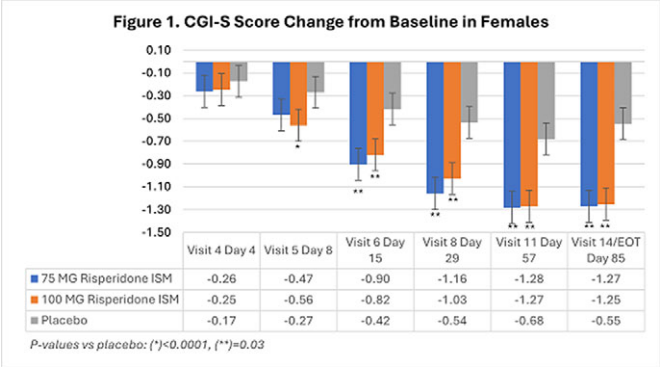
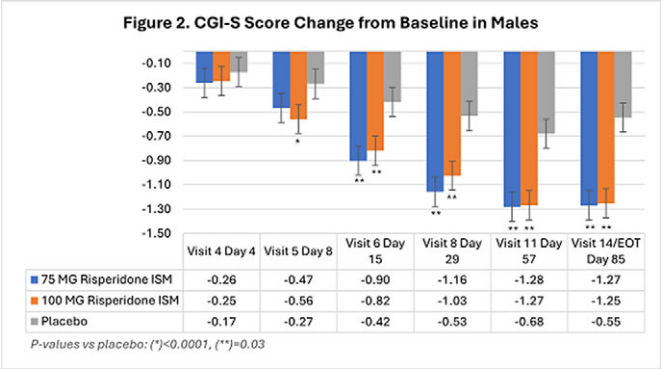


Image 2:



Conclusions: There were no statistically significant differences in efficacy, measured as CGI-S score change from baseline, for male or female participants versus placebo with Risp-ISM 75 mg or 100 mg. Risp-ISM, using monthly intramuscular doses of 75 mg or 100 mg provided significant reduction in severity of the disease as early as 8 days after the first dose in acutely exacerbated patients with schizophrenia regardless of their sex.

Disclosure of Interest: C. Sherifi Employee of: ROVI Biotech Ltd. , J. Martínez González Employee of: Laboratorios Farmaceuticos ROVI S.A., L. Anta Carabias Employee of: Laboratorios Farmaceuticos ROVI S.A., M. Almendros Gimenez Employee of: Laboratorios Farmaceuticos ROVI S.A., C. Salazar García Employee of: Laboratorios Farmaceuticos ROVI S.A., C. Correll Shareolder of: Cardio Diagnostics, Kuleon Biosciences, LB Pharma, Mindpax, and Quantic., Grant / Research support from: Janssen and Takeda., Consultant of: AbbVie, Acadia, Alkermes, Allergan, Angelini, Aristo, Biogen, Boehringer-Ingelheim, Cardio Diagnostics, Cerevel, CNX Therapeutics, Compass Pathways, Darnitsa, Denovo, Gedeon Richter, Hikma, Holmusk, IntraCellular Therapies, Jamjoom Pharma, Janssen/J&J, Karuna, LB Pharma, Lundbeck, MedAvante-ProPhase, MedInCell, Merck, Mindpax, Mitsubishi Tanabe Pharma, Mylan, Neurocrine, Neurelis, Newron, Noven, Novo Nordisk, Otsuka, Pharmabrain, PPD Biotech, Recordati, Relmada, Reviva, Rovi, Sage, Seqirus, SK Life Science, Sumitomo Pharma America, Sunovion, Sun Pharma, Supernus, Takeda, Teva, Tolmar, Vertex, and Viatris.

EPP519

Corpus Callosum Volume in Treatment-Resistant compared to Treatment Responsive Schizophrenia patients with and without cannabis use disorder: a Novel Artificial Intelligence Method Applied to Single-Subject Magnetic Resonance Imaging

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doi: 10.1192/j.eurpsy.2025.768

Introduction: The corpus callosum (CC) is essential for interhemispheric communication, and its abnormal integration is central to the neurobiology of schizophrenia (SCZ). SCZ patients have a 10-fold higher risk of cannabis use disorder (CUD) and about 20-35% show a lack or poor response to antipsychotics and are defined as treatment-resistant schizophrenia (TRS) Until now, no study has analyzed the morphology of the CC in TRS compared to healthy controls (HC) and non-TRS patients with and without CUD.
Objectives: The aim of the study is to assess whether the diagnosis of psychosis, the response to antipsychotic treatment, and CUD can influence the volume of the CC. To achieve this, we used an innovative artificial intelligence program applied to MRI, which provides structural information on a single subject.
Methods: We included 20 HC and 48 SCZ patients, of whom 14 were affected by TRS and 34 were non-TRS. Among the non-TRS group, 20 had CUD comorbidity (non-TRS-CUD^{+}) and 14 did not have CUD (non-TRS-CUD^{-}). All were assessed cross-sectionally through the Neurological Evaluation Scale, the Brief Assessment of Cognition in Schizophrenia, the Positive And Negative Syndrome Scale. We assessed them cross-sectionally using psychometric tools, cognitive tests. All patients underwent a brain MRI 1.5 T, for white matter volume group analysis, and MRI applied to Artificial Intelligence (MRI-AI-Pixyl.Neuro) for single-subjects analysis.
Results: TRS was associated with higher PANSS total score (fig. 1) and neurological soft signs (fig. 2) and lower negative symptoms (trend) than non-TRS groups. The TRS group performs worse in the Tower of London task compared to non-TRS and HC groups. Only the condition of TRS is associated with a significantly smaller CC volume (64.28%) compared to HCs and non-TRS patients (Fig. 3). Only one patient from the non-TRS-CUD^{-} group showed a reduction in the volume of the CC like TRS patients.

Image 1:

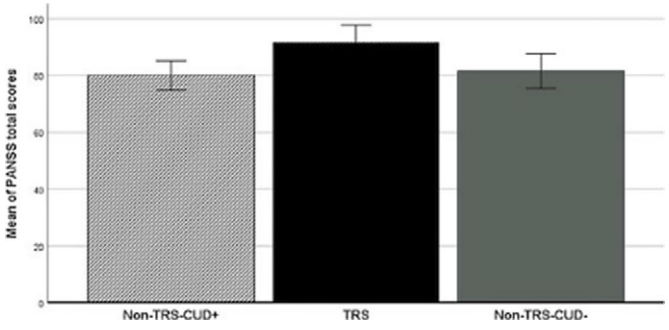


Image 2:

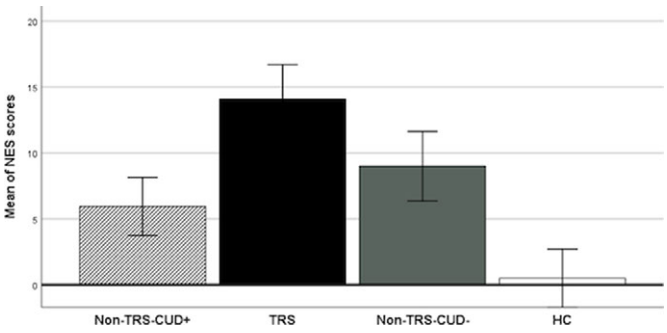
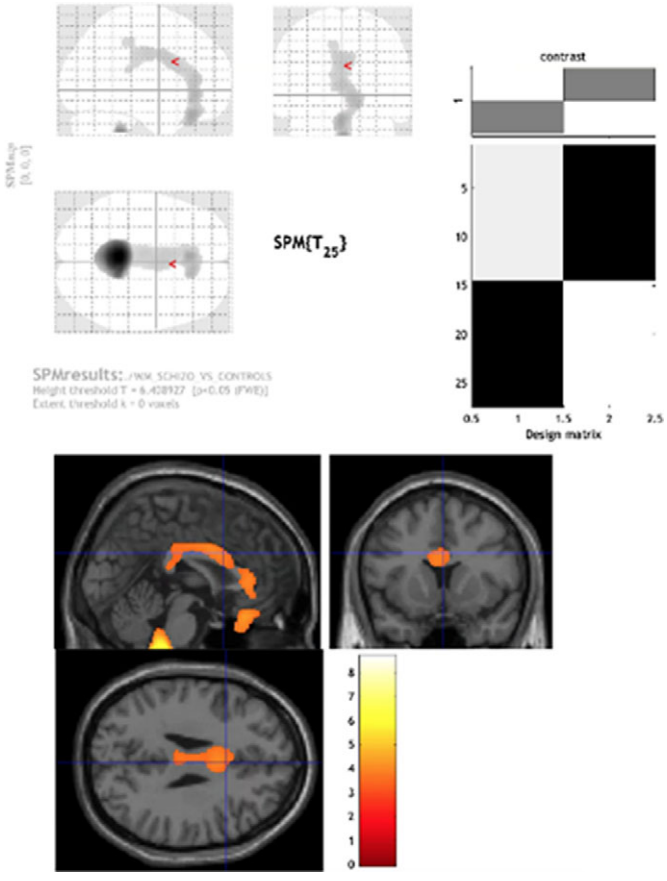


Image 3:



Conclusions: TRS is associated with more severe general and negative symptoms, NSS, and cognitive dysfunctions and with a significantly smaller CC volume, demonstrating the role of this structure in the pathogenesis of TRS and probably in executive function impairment. Is conceivable that TRS has unique evolution and course characteristics, and that continuous cannabis use for 6.95 years is probably not sufficient to cause the structural alterations typical of TRS.

The MRI-AI applied to a single subject has shown reliable results, confirmed by classical group analysis, and represents a revolutionary tool for identifying potential neuroradiological biomarkers of disease, enabling quick TRS diagnosis in clinical practice, faster clozapine treatment following TRIPP guidelines, and easy application using only a standard volumetric sequence without post-scan analysis.

Disclosure of Interest: None Declared

EPP520

Exploring the association between schizophrenia and multiple sclerosis: a case report

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doi: 10.1192/j.eurpsy.2025.769

Introduction: Schizophrenia (SCZ) is a chronic psychiatric disorder affecting cognition, perception, and behavior, while multiple sclerosis (MS) is a neurological disorder impacting the central nervous system. Despite unclear etiologies, both share commonalities such as immune-inflammatory pathways, neurocognitive impairment, and sleep disturbances (Misiak et al., 2023). Psychotic symptoms in MS typically follow neurological onset. This case report presents a patient diagnosed with SCZ a decade before developing neurological symptoms consistent with MS. His psychotic relapses coinciding with MS onset suggest potential interactions between the two disorders, raising questions about their connection.
Objectives: To investigate the potential link between SCZ and MS through a case report of a patient with SCZ who developed MS a decade later. This study aims to explore the relationship between MS onset and psychotic relapses, focusing on shared neuroinflammatory mechanisms and their implications for co-occurring SCZ and MS.
Methods: We present a case report and a non-systematic review on the subject.
Results: Male patient, 33 years old, diagnosed with SCZ at the age of 23. No previous hospitalisations. No other comorbidities. Stabilised with aripiprazole 10mg for several years. In April 2023, the patient presented to the emergency department with binocular oblique diplopia on levoversion, which had progressed for 4 days due to ophthalmoparesis. Initial diagnostic tests, including an analytical study and a CT scan, showed no abnormalities. He was referred to neurology for further investigation. He underwent an electromyography with repetitive nerve stimulation, which was normal, and an MRI-CE which revealed multiple focal hyperintense areas in T2 and T2-FLAIR in the white matter suggestive of inflammatory demyelinating lesions, consistent with MS. In December 2023, the patient was hospitalized due to psychotic decompensation. He was discharged in January 2024 stabilised with aripiprazole 30mg. However, in March 2024 he was re-hospitalized with another psychotic decompensation attributed to non-compliance with medication. Aripiprazole was reintroduced and transitioned to a long-acting injectable formulation, and the patient was discharged.
Conclusions: This case highlights important aspects of the relationship between SCZ and MS. The patient's decade-long stable psychiatric history before MS onset suggests that neuroinflammation from MS may have triggered or worsened psychotic symptoms. The neuroinflammatory processes and immune-mediated mechanisms, common to both SCZ and MS, potentially explain their co-occurrence. The timeline of neurological symptoms preceding psychiatric relapse strengthens this connection. Further research is needed to clarify the shared pathophysiology between these disorders and guide effective treatments for individuals affected by both conditions.

Disclosure of Interest: None Declared

EPP521

Clozapine: prevalence and modalities of associations with antipsychotics and mood stabilizer in French psychiatric hospitals. Multicenter survey on a given day

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doi: 10.1192/j.eurpsy.2025.770

Introduction: Clozapine is indicated for resistant schizophrenia as monotherapy. However, the response is inadequate in 40-70% of patients. In this context, the combination of clozapine with a second antipsychotic or a mood stabilizer is a strategy frequently used to potentiate its effects (**Barlatier, A. (2014)** *Human Medicine and Pathology*. [Doctoral thesis, University]). However, the level of evidence for these practices remains low, and data on the prevalence of such combinations in France are limited. Against this backdrop, collaboration between a national multi-professional network operating in various public and private mental health establishments (the PIC network) and a regional psychiatric research federation (FERREPSY Occitanie) enabled the study of the prevalence and modalities of these associations in a large panel of French psychiatric establishments.
Objectives: Estimate the prevalence of co-prescriptions of antipsychotics and mood stabilizer with clozapine for patients hospitalized in full-time psychiatry.
Methods: Observational cross-sectional study conducted on a given day in December 2023 in 30 participating centers that are members of the PIC network and/or FERREPSY.
Results: The computerized records of 795 patients were analyzed by the referring pharmacists at the participating centers. 78.4% of patients had at least one antipsychotic in association with clozapine. 64.5% of antipsychotics associated with clozapine were conventional antipsychotics. Among atypical antipsychotics, aripiprazole was combined with clozapine in 9.9% of patients, amisulpride in 10.7%, risperidone in 8.2%, olanzapine in 4.3% and quetiapine in 3%. For mood stabilizer, the combination of clozapine with valproate was the most commonly used combination (23.64% of patients), ahead of lithium salts (15.6% of patients) and lamotrigine (10.1% of patients).
Conclusions: The combination of psychotropic drugs with clozapine remains a majority practice, which seems to have little connection with existing literature data.

Disclosure of Interest: None Declared