EW0250

Efficacy and safety of MIN-101: A new drug for the treatment of negative symptoms in schizophrenia a 12-week randomized, double blind, placebo-controlled trial

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Objective To compare the efficacy, safety, and tolerability of MIN-101, a compound with high affinities for sigma 2 and 5-HT_{2A} receptors, to placebo in treating negative symptoms, in stabilized patients with schizophrenia.
Methods This multi-national phase 2b trial enrolled 244 patients with schizophrenia who were symptomatically stable for ≥ 3 months prior to entering the trial and had scores ≥ 20 negative subscale of the PANSS. Patients were randomized to monotherapy with MIN-101 32 mg/day, MIN-101 64 mg/day or placebo in a 1:1:1 ratio. The primary endpoint was the PANSS negative symptom score based on the five factors (pentagonal) model.
Results Statistically significant reduction in the primary endpoint score was demonstrated for MIN-101 32 mg and 64 mg compared to placebo ($P \leq 0.022$, ES 0.45 and ≤ 0.003, ES 0.58, respectively). This was supported by similar effects on most of the secondary measurements including: the PANSS three factors negative symptoms subscale, PANSS total score, CGI, BACS, CDSS, and PSP. There were no statistically significant differences in PANSS positive subscale scores between MIN-101 and placebo. No weight gain or clinically significant changes in vital sings, prolactin levels, routine laboratory values, metabolic indices and extrapyramidal symptom scores (EPS) were observed.
Conclusions Since positive symptoms and EPS did not change, the improvement in negative symptoms was not secondary to improvement in positive symptoms or EPS, suggesting that MIN-101 might be the first specific treatment to have a direct effect on negative symptoms.
Disclosure of interest I have received consultant fees from Minerva Neuroscience the sponsor of this trial and own stock of Minerva Neuroscience

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EW0251

The importance of family in the long-term evolution of psychoses

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Introduction Adherence and tolerance to treatment are important factors, which may predict the long-term evolution of a psychosis. Family members may influence prognosis by modulating emotional expressivity and treatment supervision.
Objectives To assess the role of family members in the long-term evolution of psychoses.
Method The present study is retrospective, conducted on patients with psychosis. Data were obtained from psychiatric records extending for a period of four years. The following parameters were analyzed: socio-demographic data, family relationships (parents, spouses) and clinical/evolutive data (onset age for psychosis, number of recurrences).
Results We analyzed 71 patients, 42 (59.2%) women and 29 (40.8%) men with a mean age of 30.38 years (SD = 9.33). The subjects were diagnosed according to ICD 10 criteria with acute and transient psychotic disorder (50 patients, 70.4%), schizophrenia (13 patients, 18.3%), and schizoaffective disorder (8 patients, 11.3%). Patients who reported conflicts between parents had significantly more recurrences ($t = -2.1$, $P = 0.04$), while those who reported satisfactory relationships in their family of origin had fewer recurrences ($t = 2.58$, $P = 0.01$) and a later onset age ($t = -2.89$, $P = 0.006$). Unmarried/single subjects had the psychosis onset at a significantly earlier age ($t = 4.72$, $P = 0.0001$). In addition, these patients had more conflicts between parents ($Z = -2.02$, $P = 0.04$) in comparison with married ones.
Conclusions Conflicts in the family of origin may predispose to a greater number of recurrences and to an earlier disorder onset. The presence of a spouse may represent a protective factor.
Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0252

Classification of first-episode schizophrenia spectrum disorders and controls from whole brain white matter fractional anisotropy using machine learning

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Background Schizophrenia is a chronic disorder with an early onset and high disease burden in terms of life disability. Its early recognition may delay the resulting brain structural/functional alterations and improve treatment outcomes. Unlike conventional group-statistics, machine-learning techniques made it possible to classify patients and controls based on the disease patterns on an individual level. Diagnostic classification in first-episode schizophrenia to date was mostly performed on sMRI or fMRI data. DTI modalities have not gained comparable attention.
Methods We performed the classification of 77 FES patients and 77 healthy controls matched by age and sex from fractional anisotropy data from using linear support-vector machine (SVM). We further analyzed the effect of medication and symptoms on the classification performance using standard statistical measures (*t*-test, linear regression) and machine learning (Kernel–Ridge regression).
Results The SVM distinguished between patients and controls with significant accuracy of 62.34% ($P = 0.005$). There was no association between the classification performance and medication nor symptoms. Group level statistical analysis yielded brain-wide significant differences in FA.
Conclusion The SVM in combination with brain white-matter fractional anisotropy might help differentiate FES from HC. The performance of our classification model was not associated with symptoms or medications and therefore reflects trait markers in the early course of the disease.
Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0253

Research and practice for ultra-high risk for psychosis: A national survey of early intervention in psychosis services in England

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