

• IN THIS ISSUE •

[*Shanghai Arch Psychiatry*. 2018; **30**(3): 145-146. doi: <http://dx.doi.org/10.11919/j.issn.1002-0829.218048>]

Our staff is now in preparation for the upcoming launch date with the BMJ Publishing Group. The first important step is to accept and review all the articles in English using the ScholarOne system. Use of this system will be implemented starting from June. We believe that the new use of the ScholarOne system will help improve our manuscript reviewing process and increase the quality of published articles.

Schizophrenia is a kind of chronic brain disease with unclear etiology, unsatisfactory effect of treatments, and poor functional outcomes. The present issue is focused on introducing research reports related to schizophrenia.

It starts with Liu and colleagues^[1] introducing the biological research progress of schizophrenia in China with a special focus on neuroimaging research (resting state functional magnetic resonance imaging (fMRI) and functional connectivity, diffusion tensor imaging, and genetic imaging research), genetic research, and immunological research in 2017. They pointed out that applying neuroimaging technology to study schizophrenia is the most active research field in China in the past year. They also give a brief introduction of research progress of ultra-high-risk state populations. In the conclusion, the author commented on possible directions for future research.

Since the 1990s cognitive deficit has been considered as one of the core symptoms of schizophrenia and an important factor which influences the functional outcomes of schizophrenia. Therefore, cognitive deficit symptoms are one of the main topics of this issue. Xinyue Zhang and colleagues^[2] studied the cognitive function and cerebral grey matter volume in first-episode patients with schizophrenia. The result suggests that there are impairments in both neuro-cognitive functions (Clock Drawing Test, Trail Marking Test, Digit Span Test, Auditory Verbal Learning Test, Wisconsin Card Sorting Test, Verbal Fluency Test, Semantic Similarity Test, Stroop Color-Word Test) and social cognitive function (Facial Emotion Cognition Task), and that the cerebral grey matter volume of patients with schizophrenia is also abnormal (left superior frontal gyrus, occipital gyrus, lingual gyrus and upper cerebellum). Correlation analysis indicates that the scores on the Stroop Color-Word Test and Facial Emotion Cognition Task are correlated with the abnormal volume of certain brain areas. Hong Gan and colleagues^[3] conducted a comparison study on working memory between patients with schizophrenia and patients with methamphetamine induced psychosis

(MAP), and they employed the n-back task adapted with verbal materials as a cognition measurement tool. They found that the main effects of the between-group variable (group) and the within-group variable (n) are significant, that the interaction effect of the between-group variable and the within-group variable is also significant, and that the difference between the two groups' working memory scores is statistically significant after being transformed with Z standards. These results are in line with the theory that MAP patients' ability to regulate, update, execute and control active information is better than those of patients with schizophrenia.

In the last decade, olanzapine became widely used in mental health service worldwide even after being criticized for its metabolic side effects. Patients with schizophrenia on olanzapine were usually found to stay on their medications longer than other second-generation antipsychotics (SGAs) except clozapine. The reason for this is unknown. Hongbo He and colleagues^[4] conducted follow-up calls on 148 patients with schizophrenia for a year after treatment. The results showed that after an average of 72.8 days of inpatient treatment, the olanzapine and other SGAs group exhibited similar levels of symptom improvement. The Olanzapine group exhibited better improvement in insight assessed using the G12 item of PANSS and Insight and Treatment Attitudes Questionnaire (ITAQ), more metabolic side effects indexed with total cholesterol, triglycerides levels and weight gain, and a lower medication discontinuation rate than the other SGAs group. The results indicated that although general symptom improvement was similar, olanzapine significantly improved insight and presented less medication discontinuation compared to other SGAs, which might partially explain why patients on olanzapine stayed longer on their medications.

Methamphetamine abuse is a global public health problem, and there is no effective treatment available currently. Xueqing Wu and colleagues^[5] employed the MAP induced conditioned place preference rat model and used repetitive transcranial magnetic stimulation (rTMS). They found that applying rTMS stimulation for three consecutive days significantly inhibits relapse behavior, and it suggests that chronic rTMS stimulation can inhibit relapse behavior in MAP induced rats.

In the forum section of this issue, Professor Shi^[6] gives a comprehensive introduction to the current research status of the cognitive deficits in schizophrenia. Professor Shi points out that there are impairments in both neuro-cognition (there are impairments in almost

all important cognitive areas) and social cognition, and these two kinds of cognitions are both key factors which influence the functional outcomes. He then discusses the biological basis, measurement methodologies and the research progress of cognitive deficits symptoms in schizophrenia. In the conclusion, Professor Shi explores the progress of therapies and coping strategies for cognitive deficits in schizophrenia.

This issue also introduces one interesting case report. Qiongwei Yang and colleagues^[7] introduced a patient with hypokalemia induced by quetiapine and risperidone. They reported on a 49-year-old female patient with schizophrenia who developed hypokalemia after quetiapine and risperidone oral treatments, and had her blood potassium restored to normal after the replacement of another antipsychotic drug. Then the author discussed the potential mechanism and clinical considerations of antipsychotic drugs leading to hypokalemia.

Finally, the topic of biostatistics in psychiatry focused on the accuracy assessment of diagnostic tests. The author stated that if a screening tool can correctly classify diseased subjects as disease and non-diseased subjects as non-diseased, the screening tool can be advocated for use in medical practice. Otherwise, its usage should be cautioned. In this article, there were several samples to illustrate how to estimate the accuracy of a test through a real study, which concluded that the ROC curve is regarded as an excellent way to depict the ability of the test in discriminating disease at each cut-point, but in practice, it is also very important to have a single index to summarize the over performance of the test, such as the area under the ROC curve (AUC). Please see all the details in our following articles.

edited by Dengtang Liu

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