Selected issues of the DGPPN Congress in 2013

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This issue deals with different facets of prediction of dementia and psychosis as well as novel aspects of psychotherapy and psychopharmacology. This small selection of multifocal themes had been presented at the DGPPN Congress in November 2013. In a comprehensive review, Jessen [1] reports that—beside neuroimaging findings—subtle cognitive decline occurs at late stages of preclinical Alzheimer's disease and that cognitive symptoms may serve as early biomarkers of dementia. Prediction of psychosis has been advanced during the last decades, and Ruhrmann et al. [2] focus on current criteria based on a risk stratification approach, which may help to identify subgroups of patients with specific needs and response patterns. Furthermore, improved identification of factors being related to transition into psychosis may enable a targeted intervention. Müller et al. [3] review the impact of evidence-based psychotherapy on prevention of transition to full-blown psychosis. Most evidence is available for cognitive behavioral therapy (CBT), being effective for positive symptoms and family intervention playing a role in prevention of relapses. Bajbouj and Padberg [4] present novel findings, which indicate that a combination of psychotherapy with noninvasive brain stimulation such as transcranial current stimulation (tDCS) is successful in patients with psychiatric disorders. This strategy parallels promising developments in neurology and rehabilitation.

Prediction of treatment response is important for the development of personalized medicine. Retz and Junginger [5] are focusing on genetic, neuroimaging and clinical studies dealing with nonresponse to methylphenidate treatment in adult attention deficit/hyperactivity disorder (ADHD). Comorbidity with substance use and personality disorders have been reported to influence outcome, but to date, valuable neurobiological markers are missing. In major depression, van der Auwera et al. [6] investigated the complex interplay between genetic factors and childhood abuse. Genetic variants within the serotonergic pathway, which are related to decreased presynaptic serotonin concentration, may play a role in this gene–environmental interaction. However, despite investigation of two large groups with more than 2,000 individuals each, sample size in subgroups was small and results should be replicated in further studies. Since a subgroup of patients with major depression shows only poor response to antidepressive drugs, Walter et al. [7] review acute and delayed antidepressant effects of subanesthetic ketamine infusion. They argue that acute effects on abnormal network configuration and delayed effects on synaptic plasticity may be the basis of antidepressant effects of the N-methyl-D-aspartate (NMDA) receptor antagonist ketamine. Therefore, treatment with a single dose of ketamine should be followed by other psychotherapeutic and psychopharmacological approaches to exploit these transient changes. On the other hand, NMDA receptor antagonists are potent pharmacological models for psychotic symptoms, and beside antidopaminergic properties, antipsychotics may also influence the glutamatergic system. Zink et al. [8] summarize current knowledge on effects of first- and second-generation antipsychotics on glutamate receptor and transporter expression. Unraveling therapeutic mechanisms of antipsychotics on the molecular level is of major importance since

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cognitive and negative symptoms in schizophrenia may be related to alterations of the glutamatergic system. Gaining knowledge in this field may be the basis for development of new therapeutic options. In particular, improvement of cognitive symptoms is recommended in major psychiatric disorders, but also pharmacological cognitive enhancement in healthy subjects has become an important topic. Franke et al. [9] discuss prevalence rates and pro-cognitive effects of three groups of drugs: Over-the-counter drugs including coffee and caffeinated drinks, stimulants such as methylphenidate and illicit drugs. Stimulants and caffeine have at least effects on simple cognitive domains such as vigilance, attention and concentration, whereas antidementia drugs and Ginkgo biloba have no cognitive effects in healthy subjects.

We, regrettably, here could only illustrate excerpts of last year's DGPPN Congress, but hope to stimulate participants of the upcoming Congress in 2014 to attend a variety of new high-quality insights, which are summarized under the slogan: "Challenges by demographic change: Psychiatric diseases today and tomorrow."

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