"Pharmacological therapies for schizophrenia – recent advances and future perspectives"

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Four main topics have shaped research and clinical practice in the past decade. These have dealt with: 1) Early intervention in the prediagnostic stage, i.e. the attenuated psychosis syndrome; 2) Novel neurobiological treatment targets; 3) The introduction of alternative formulations; 4) Attempts to predict treatment response.

- 1) In a number of RCTs, researchers have investigated whether treating prodromal symptoms of schizophrenia helps to reduce the conversion risk to full-blown schizophrenia. Results are ambiguous and the discussion on whether or not an intervention at the stage is justified is ongoing.
- 2) Following the enhanced understanding of the pathophysiology of schizophrenia, also with respect to specific symptom domains, pharmacological targets beyond D2 receptor antagonism have been explored. Much work and enthusiasm has revolved around nicotinergic and glutamatergic compounds, so far with mostly discouraging results.
- 3) Several new generation antipsychotics have become available as long-acting depot formulations. All of them have demonstrated a significant positive impact on relapse rates in placebo controlled studies. Whether these compounds also have advantages over first generation depots and / or oral antipsychotics is still debated and investigated.

Lastly, attempts from various perspectives, including genetics and neuroimaging, have investigated whether it is possible to predict treatment response and drug safety. Although some look promising, they have not yet reached a stage in which they can be applied to everyday clinical practice. What has become clear though, is, that early non response predicts late non response, leading to the recommendation to switch antipsychotics much earlier than stated in most treatment guidelines.