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SCHIZOPHRENIA Factsheet

September 2020

What are catecholamines?

Catecholamines are a group of neurotransmitters that includes dopamine and noradrenaline. The dopamine hypothesis of schizophrenia suggests that some symptoms of the illness may be caused by increased levels of dopamine in certain brain areas. To this end, most antipsychotic medications typically have dopamine-blocking actions. However, these medications do not treat all of the symptoms of schizophrenia, and it is thought that some of the remaining symptoms may be affected by the low levels of dopamine resulting from medication. Consequently, the effects of medications that increase dopamine levels, in addition to ongoing antipsychotic medications, have been investigated as a treatment for general symptoms.

What is the evidence for catecholamines?

Moderate to low quality evidence finds a medium-sized benefit of L-DOPA over placebo for improving overall symptom severity. There may also be a benefit for tardive dyskinesia with dopaminergic medications, with no differences compared to placebo in levels of acceptability.

Large benefits were found for mirtazapine or mianserin for improving total and negative symptoms, but not for improving general or positive symptoms. Review authors report that the treatment was well tolerated.

Some benefit was also found for noradrenergic reuptake inhibitors over placebo for general symptoms in the short-term (2-12 weeks) and negative symptoms in the medium-term (13-26 weeks). There may also be some improvements in quality of life with noradrenergic medications, with no differences compared to placebo in levels of nausea.

For more information see the technical table



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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at neura.edu.au/donate/schizophrenia.