

Kärnbudskap att lyfta fram:

”Resultaten tyder på att dopamin D₁ receptorerna, till skillnad från dopamin D₂ receptorerna, har en inhibitorisk roll i psykomotorisk aktivering.”

”Dopamin D₁ receptoragonister visade sig blockera amfetamininducerad hyperaktivitet- ett resultat som traditionellt tolkas som en potentiell antipsykotisk verkan.”

Figurlegend

Figur 1. Effekter av dopamin D₁ receptoragonisten A 68930. A) Sänkning av lokomotion. B) Blockad av amfetamininducerad hyperaktivitet. C) Neural aktivering (mörka områden) i prefrontalcortex².

Referenser

- 1 Creese I, Burt DR, Snyder SH. Dopamine receptor binding predicts clinical and pharmacological potencies of antischizophrenic drugs. *Science*. 1976, 192:481-483.
- 2 Isacson R, Kull B, Wahlestedt C, Salmi P. A 68930 and dihydrexidine inhibit locomotor activity and d-amphetamine-induced hyperactivity in rats: a role of inhibitory dopamine D(1/5) receptors in the prefrontal cortex? *Neuroscience*. 2004, 124:33-42.
- 3 AI-Naser HA, Cooper SJ. A-68930, a novel, potent dopamine D1 receptor agonist: a microstructural analysis of its effects on feeding and other behaviour in the rat. *Behav Pharmacol*. 1994, 5:210-218.
- 4 Goulet M, Madras BK. D(1) dopamine receptor agonists are more effective in alleviating advanced than mild parkinsonism in 1-methyl-4-phenyl-1,2,3, 6-tetrahydropyridine-treated monkeys. *J Pharmacol Exp Ther*. 2000, 292:714-724.
- 5 Salmi P, Ahlenius S. Sedative effects of the dopamine D1 receptor agonist A 68930 on rat open-field behavior. *Neuroreport*. 2000, 11:1269-1272.
- 6 Weinberger DR, Lipska BK. Cortical maldevelopment, anti-psychotic drugs, and schizophrenia: a search for common ground. *Schizophr Res*. 1995, 16:87-110.
- 7 Guillin O, Abi-Dargham A, Laruelle M. Neurobiology of dopamine in schizophrenia. *Int Rev Neurobiol*. 2007, 78:1-39.
- 8 Vezina P, Blanc G, Glowinski J, Tassin JP. Opposed Behavioural Outputs of Increased Dopamine Transmission in Prefrontocortical and Subcortical Areas: A Role for the Cortical D-1 Dopamine Receptor. *Eur J Neurosci*. 1991, 3:1001-1007.
- 9 Karlsson P, Smith L, Farde L, Härnryd C, Sedvall G, Wiesel FA. Lack of apparent antipsychotic effect of the D1-dopamine receptor antagonist SCH39166 in acutely ill schizophrenic patients. *Psychopharmacology (Berl)*. 1995, 121:309-316.
- 10 Sedvall G, Farde L. Chemical brain anatomy in schizophrenia. *Lancet*. 1995, 346:743-749.
- 11 Castner SA, Williams GV, Goldman-Rakic PS. Reversal of antipsychotic-induced working memory deficits by short-term dopamine D1 receptor stimulation. *Science*. 2000, 287:2020-2022.
- 12 Goldman-Rakic PS, Castner SA, Svensson TH, Siever LJ, Williams GV. Targeting the dopamine D1 receptor in schizophrenia: insights for cognitive dysfunction. *Psychopharmacology (Berl)*. 2004, 174:3-16.
- 13 Robertson GS, Fibiger HC. Neuroleptics increase c-fos expression in the forebrain: contrasting effects of haloperidol and clozapine. *Neuroscience*. 1992, 46:315-328.
- 14 Salmi P, Karlsson T, Ahlenius S. Antagonism by SCH 23390 of clozapine-induced hypothermia in the rat. *Eur J Pharmacol*. 1994, 253:67-73.
- 15 Salmi P, Ahlenius S. Further evidence for clozapine as a dopamine D1 receptor agonist. *Eur J Pharmacol*. 1996, 307:27-31.

- 16 Chou YH, Halldin C, Farde L. Clozapine binds preferentially to cortical D1-like dopamine receptors in the primate brain: a PET study. *Psychopharmacology (Berl)*. 2006, 185:29-35.
- 17 Ahlenius S. Clozapine: dopamine D1 receptor agonism in the prefrontal cortex as the code to decipher a Rosetta stone of antipsychotic drugs. *Pharmacol Toxicol*. 1999, 84:193-196