Pharmacology of the Atypical Antipsychotic Remoxipride, a Dopamine D₂ Receptor Antagonist

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ABSTRACT

Remoxipride is a substituted benzamide that acts as a weak but very selective antagonist of dopamine D₂ receptors. It was introduced by Astra (Roxiam®) at the end of the eighties and was prescribed as an atypical antipsychotic. This article reviews its putative selective effects on mesolimbic versus nigrostriatal dopaminergic systems. In animals, remoxipride has minimal cataleptic effects at doses that block dopamine agonist-induced hyperactivity. These findings are predictive of antipsychotic activity with a low likelihood of extrapyramidal symptoms. Remoxipride also appears to be effective in more recent animal models of schizophrenia, such as latent inhibition or prepulse inhibition. In clinical studies, remoxipride shows a relatively low incidence of extrapyramidal side effects and its effects on prolactin release are short-lasting and generally mild. The clinical efficacy of remoxipride is similar to that of haloperidol or chlorpromazine. Although its clinical use was severely restricted in 1993, due to reports of aplastic anemia in some patients receiving remoxipride, this drug has been found to exhibit relatively high selectivity for dopamine D₂ receptors making remoxipride an interesting tool for neurochemical and behavioral studies.