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Title

Drugs which influence serotonin transporter and serotonergic receptors: pharmacological and clinical properties in the treatment of depression

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Abstract

Depression is nowadays a major contributor to global burden of disease. The most commonly prescribed drugs influence monoaminergic pathways, mainly concentrating on serotonin. Unfortunately, there are several drawbacks associated with these drugs, namely late onset of action, risk of suicide and adverse effects: mainly nausea, vomiting and sexual dysfunction. Therefore there is still need for new drugs with possibly high efficacy and fewer side effects.

In this paper selected compounds which inhibit serotonin reuptake by acting on the serotonin transporter (SERT) and various serotonergic receptors are presented. We also discuss the ways in which their mechanism of action can be modified to improve pharmacological profile.

Here, we focus on describing drugs' potency, efficacy and adverse effects. Additional applications, apart from depression, are also discussed.

Introduction

Depression is a common mental disease. According to the World Health Organization more than 350 million people of all ages suffer from it globally. Depression is also the leading cause of disability worldwide, and is a major contributor to the global burden of disease.

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