

new medications based on metabolic pathways modulation can bring lasting cures for patients suffering from these intractable conditions.

ANTIDEPRESSANTS: MECHANISM OF ACTION, TOXICITY AND POSSIBLE AMELIORATION

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Introduction. Depression is a global health problem, with more than 264 million people affected; it is the leading cause of disability in the world with a delay in diagnosis and treatment. Untreated depression is a serious health problem, it increases risky behaviors, such as drug addiction, suicide, ruined relationships, problems at work.

Aim To study the different types of antidepressants their classifications, side effects, field of uses and prescriptions in management of depression, investigate pathogenesis and latest approaches to rational treatment.

Materials and methods. We searched Google, Google Scholar and PubMed for relevant scientific articles on the topic and examined national guidelines of Ukraine, Britain, Europe and USA.

Results and discussion. Optimal treatment starts with appropriate patient education about the nature of the illness and the nature of the proposed treatment. Specific pharmacological treatment is effective for major depression with greatest evidence but less effectiveness for moderate to mild forms of depression.

In moderate depression, the decision to prescribe an antidepressant or not it is up to the doctor to determine the necessity of a pharmacological treatment in consideration of the possible side effects and the evolution of the symptoms.

The choice of an antidepressant drug is based on the type of symptomatology as well as severity of the symptoms, avoidance of side effects (sedation, weight gain, sexual dysfunction), presence of comorbid psychiatric and/or somatic disorders, prior positive and/or negative response (and tolerability/adverse effects) to a given antidepressant. Other considerations are the contraindications and potential toxicity of the drug and, to a lesser degree, its cost. Moreover, patient preference — after being informed about the benefit-risk ratio — may be expected to enhance compliance.

SSRIs are more effective than primarily noradrenergic antidepressants (maprotiline) in reducing irritability/aggression and anxious symptoms with less side effects. On the other hand, severely depressed patients with psychomotor retardation respond more favorably to treatment with noradrenergic antidepressants than with SSRIs. Some studies suggest that monoamine oxidase inhibitors (MAOIs) are highly effective in out-patients with “atypical depression” (characterized by fatigue, excessive need for sleep, increased appetite/weight gain, and rejection sensitivity). However, given the dietary restriction needed and the numerous interactions with other drugs, MAOIs remain a second-line treatment in this group of patients.

On the other hand, SSRIs and newer antidepressants are better tolerated than TCAs and are safer in overdose. Moreover, their dose formulation tends to ensure adequate dosing, and they can be administered at the recommended dose after a few days of treatment at a lower dose.

Conclusions. Depression is a serious psychological condition but it can be effectively treated with available therapies. The stock of antidepressants available may be selectively used for treating depression safely without any side effects. The right medication to an individual depends on the clinico-physiological conditions of the patient such as symptoms, possible side effects, and interaction with other medications, state of pregnancy or breast feeding and the mental conditions.

Different classes of antidepressants are used in practice depending the degree, severity, side effects and response to treatment such as: selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors, norepinephrine and dopamine reuptake inhibitors.

It could be however worthwhile to improve the current therapeutic arsenal and ensure better management by combining pharmacological treatment and Psychotherapy such as: Cognitive-behavioral therapy Interpersonal Therapy.

**ТИРОЗИНКИНАЗНІ РЕЦЕПТОРИ,
ЇХ РОЛЬ У РОЗВИТКУ ПУХЛИННИХ ПРОЦЕСІВ
І ТАРГЕТНА ТЕРАПІЯ**

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Вступ. Внутрішньоклітинна сигналізація – це відносно молода наука, виникнення якої пов’язують з відкриттям фосфоліпідів, G-білків, протеїнкінази