

## PHARMACOTHERAPY FOR PANIC DISORDER

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**Introduction.** Panic disorder (episodic paroxysmal anxiety) is anxiety disorder, when periodic panic attacks arise, are not limited to specific circumstances and places, that is, they are unpredictable. The prevalence of panic disorder (PR) in adults in the United States varies from 2.0% to 6.0%. According to the Ukrainian World Mental Health Survey, in our country, the prevalence of panic disorder throughout life is about 2% (women - 2.91%, men - 0.76%). Women are 2-3 times more likely to suffer than men.

**Aim.** The purpose of our study was to investigate the pharmacotherapy of panic disorder in international medical practice.

**Materials and methods.** The treatment of PR includes the following steps: panic attacks (PA), stabilization therapy and prophylaxis. At the stage of acupuncture of PA, the leading role in the treatment of PR belongs to antidepressants,  $\beta$ -adrenoblockers and benzodiazepines. At present, selective serotonin reuptake inhibitors (SSRIs) have been identified as preparations for the first line of treatment for the treatment of panic disorder.

**Results and discussion.** The purpose of effective pharmacotherapy is the reduction of clinical symptoms for at least 6 months and the stability of the mental state for 6 months.

Sertraline is a potent and specific inhibitor of neuronal seizure of serotonin (5-HT) thereby increasing the amount and enhances neurotransmission of serotonin. Sertraline will not allow the development of drug abuse or sedative and psychomotor disorders. Sertraline is registered in Ukraine under the trade name ZOLOFT®. The initial dose of the drug is 25 mg, once in the morning or in the evening, orally, regardless of food intake. If necessary, the dose is increased after 1 week to 50 mg once a day. It has been established that such a dosage regimen reduces the incidence of developmental effects in the early stages of the treatment of side effects that are characteristic of panic disorder.

**Conclusions.** According to four double-blind studies, the treatment of panic disorder with sertraline leads to a reduction in the number of panic attacks and an improvement in the quality of life. The response rate was independent of the dose. In addition to decreasing the frequency of panic attacks by about 80% (vs. 45% for placebo) and decreasing general anxiety, sertraline resulted in improvement of quality of life on most parameters.

## PHARMACOTHERAPY OF HYPOPARATHYROIDISM

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**Introduction.** Hypoparathyroidism is a pathology that develops as a result of a lack of parathyroid hormone secreted by the parathyroid glands or a violation of the receptor tissue sensitivity to it. Reduction in the functional activity of parathyroid glands of different genesis is observed in 0.3-0.4% of the population and can occur at any age, leading to a disruption in the exchange of calcium and phosphorus. In Denmark, the prevalence of hypothyroidism is 22 per 100 000 people, in the United States - 37 per 100 000 people. The true prevalence of hypoparathyroidism in Ukraine is not specified. According to statistics, the level of hospitalization for hypoparathyroidism in women is 3 times higher than that of men. Depending on the type of hypoparathyroidism, an algorithm for its treatment is chosen. In the treatment of hypoparathyroidism, medicated and non- medicated approaches (diet therapy) can be used.

**Aim.** The aim of our study was to study the pharmacotherapy of hypoparathyroidism in international medical practice.

**Materials and methods.** Treatment of patients with hypoparathyroidism includes correction of hypocalcemia by administration of calcium and vitamin D. Substitution therapy with parathyroid hormone

is rarely performed, as long as it is used, antibodies are formed. In addition, in the treatment of hypoparathyroidism, the convulsive syndrome is prevented, which occurs when there is insufficient secretion of parathyroid hormone.

**Results and discussion.** The main place in the treatment of hypoparathyroidism belongs to preparations of vitamin D (cholecalciferol, alfacalcidol, colcalciferol) in combination with calcium preparations (calcium carbonate, calcium gluconate, calcium chloride). After reaching normocalcemia, patients are transferred to a diet with an elevated calcium content), which allows to reduce the dose of calcium preparations, which often have irritating effect on the gastrointestinal tract. In the treatment of hypocalcemia, it is necessary to continuously monitor not only the calcium content in blood serum, but also the levels of phosphorus and magnesium, combining therapy so that their concentration in the blood is kept within normal limits. In order to reduce the hyperphosphataemia that occurs with hypoparathyroidism, a phosphorus-binding preparation without calcium is used - sevelamer (800-2400 mg 3 times a day inwards with food). Lanthanum carbonate can also be used. It is prescribed in doses of 500-1000 mg 3 times a day inwards with food. For tetany, intravenous administration of 10 ml of 10% calcium chloride solution or calcium gluconate is used (within 10 minutes).

**Conclusions.** To date, the treatment of patients with hypoparathyroidism, which includes correction of hypocalcemia by the administration of calcium and vitamin D, is the most effective. In order to monitor the effectiveness of therapy for hypoparathyroidism, an endocrinologist should be observed once every 3-4 months.

## PATHOGENETIC PHARMACOTHERAPY OF MULTIPLE SCLEROSIS

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**Introducing.** Multiple sclerosis (MS) – is an immune-mediated inflammatory disease of the central nervous system, destroying the myelin, affecting both the brain and spinal cord. MS ranks second among disabling diseases of the central nervous system. The prevalence of MS in Ukraine amounted to 3.4 thousand per 100 000 population.

The **aim** of our work is to study the recommendations based on the evidence regarding the conduct of pathogenetic pharmacotherapy of MS.

**Materials and method.** We analyzed the Unified clinical protocol of primary, secondary (specialized) and tertiary (highly specialized) medical care: MS, approved by the Ministry of Health of Ukraine in 2016, Guidelines NICE: Management of MS 2014, 2016, materials from Medscape 2017.

**Results and discussion.** Pathogenetic pharmacotherapy is aimed at modifying the course of the disease, used to prevent relapses and, ultimately, to reduce the accumulation of disability. It consists of first-line drugs: cytokines/immunomodulators and interferons, and the second line: monoclonal antibodies and selective immunosuppressants. To the group of drug of cytokines and immunomodulators belong to Glatiramer acetate. To the interferon group refer interferon beta-1alpha, interferon beta-1 beta. The use of drugs in the second line is indicated in the case of insufficient first-line treatment in patients with relapsing-remitting MS, if the course of treatment did not show a therapeutic effect when receiving the first-line drug during the year; in the aggressive course of relapsing-remitting MS; patients with secondary progressive MS. To the group of the second line of pathogenetic pharmacotherapy belong selective immunosuppressants: Mitoxantrone, Fingolimod (Gilenya), monoclonal antibodies: Natalizumab (Tysabri). The second line drugs recommended by the European guidelines for the pharmacotherapy of relapsing-remitting MS but not registered in Ukraine include: selective immunosuppressants – Teriflunomid (Aubagio), Dimethylfumarate (Tecfidera), and monoclonal antibodies – Alemtuzumab (Lemtrada), Daclizumab (Zinbryta).

**Conclusions.** According to the Ukrainian and European recommendations for pathogenetic pharmacotherapy of MS used cytokines/immunomodulators, interferons, monoclonal antibodies, selective immunosuppressants.