

проводимой данному контингенту пациентов, с учетом наличия у них низких показателей качества жизни в отдаленном периоде воздействия сильного стрессового фактора.

**Ключевые слова:** тревожная и депрессивная симптоматика непсихотического регистра, личностные особенности, качество жизни, дифференцированный подход.

the remote period of exposure to a strong stress factor is underlined.

**Key words:** anxious and depressive symptoms of non-psychotic register, personality characteristics, quality of life, differentiated approach.

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## MODERN METHODS OF DIAGNOSIS AND MIGRAINE TREATMENT

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**Summary.** The review of literary data is presented in the article and devoted to one of main types of primary headache disorder – migraine. Using of modern screening methods allows increasing the level of diagnostic of the patients suffering from attacks of migraine; to estimate effect of migraine on quality of life of the patients. In this review modern methods at migraine therapy are described, requirements to medications which are applied to stopping the attacks of migraine are described. And also the analysis of pharmaceutical market of triptans in Ukraine is presented.

**Key words:** migraine, triptan, quality of life.

### Introduction

Migraine is one of the most widespread and socially significant diseases, attention to which has recently increased not only among neurologists, but also among therapists, cardiologists, family physicians and other medical specialties.

In 2000, the migraine was included to the list of diseases, which have global significance and represent a burden for Humanity (Global Burden of Disease 2000). It is determined by its prevalence and significant impact on quality of life. According to the World Health Organization (WHO), migraine is included to twenty reasons that lead to the violation of human's adaptation and requires an integrated method to its treatment [1-7].

The purpose of the article is a study of screening methods, which allows improving the diagnosis of patients suffering from migraine attacks.

### Materials and methods

The spreading of migraine among women ranges from 11.0 % to 25.0 %, among men — from 4.0 % to 10.0 %; it usually appears by the first time between the ages of 10 to 20 years. At the age of 35–45 years, the frequency and intensity of migraine attacks reach a maximum, after 55–60 years the migraine is stopped at the majority of patients. It has heritable character in 60.0–70.0 % patients [1, 3, 4].

### Results and Discussion

In everyday practice migraine is often misdiagnosed, and patients do not receive optimal medical care. As it is shown by epidemiological studies, only 20.0 % of patients with migraine are given the appropriate diagnosis, and the most part

of patients do not apply to doctors about headaches [8–12]. The frequency of migraine attacks is varied from 1–2 times per week to 1–2 times per year. More than half of the patients have an attack at least 1 time per month. The average frequency of attacks among the population is 24 attacks per year [13, 14].

Migraine is not a fatal disease, but significantly reduces the quality of life of patients [3]. Financial and economic costs associated with sick leave, as well as the diagnosis and treatment of migraine, are huge to compare to the cost of cardiovascular diseases [15, 16]. Also it is necessary to keep in mind the fact that migraine is a disease whose diagnosis in general medical practice is not sufficient, that's why one of the urgent issues is to use screening methods for its detection. Effective using of screening could significantly improve the level of diagnostic, increase efficiency of clinical consultations, facilitate adequate management of patients after the first examination and improve patient compliance suffering from migraine [7, 10].

Effective treatment of migraine begins with diagnosis and conducting differential diagnosis of the disease. Treatment of specific cure migraine should be begun after diagnosis; otherwise these drugs are not effective or even are able to be injurious to the health of the patient [17–19].

The main goal of treatment is sustain of high quality of life for patients with migraine by teaching him quickly, efficiently and safely cut of migraine headache, and presentation of a range of measures designed to reduce the frequency, intensity and duration of attacks [17, 20–25].

A necessary condition for this goal is the cooperation between doctor and patient and active participation of the last one in his own treatment. The patient is recommended to start "headache diary" where during 2–3 months (the period of examination and treatments) he should record the frequency, intensity, duration of headache, takings of drugs, it's also desirable to record precipitating factors and associated symptoms. In process of treatment the diary can clearly and accurately demonstrate its effectiveness [17, 22].

Migraine is traditionally regarded as favorable disease that does not lead to serious complications and disability. The cue is the intense pain, but migraine is accompanied by concomitant symptoms that significantly reflected on the working capacity. 80.0% of patients are in very strong and severe pain [6, 26], 75.0 % — have nausea, photo- and acousticophobia [26], 70.0 % — are in need of bed rest [27]. More than 75.0 % of patients believe that their daily activity is limited because of a migraine.

Most people suffering from frequent (regular) headaches do not seek medical advice, while trying to use different types and ways of self-treatment, which often do not bring relief to patients because they do not have therapeutic efficacy. Those patients who seek medical attention are often patients with frequent or severe headaches, migraine complications, with high levels of deadaption and, as a rule, these are cases where self-treatment had failed and also had a negative experience with symptomatic agents [18, 28]. Unfortunately, patients all over the world prefer to take symptomatic medicine when they have a migraine attack. According to the American Association for the Study of Headache, the properly selected drug therapy at migraine attack reaches treatment's efficiency in 95.0 % cases. [29].

The success of treatment greatly depends on the doctor's ability to teach the patient to identify triggers and to avoid situations provoking migraines. Many patients don't know about existence of triggers and / or do not know how to identify them.

The treatment of migraine is including the following objectives: prevention of attacks, treatment of spells of illness and preventive cure of migraine. Having taught patient to identify predictors and triggers of migraine, and avoiding situations that provoke migraine can be achieved to prevent or to significantly reduce the number of attacks without drug-induced treatment [10, 20].

The main goal of migraine attack treatment is not only the elimination of headache and associated symptoms, but also the rapid recovering working capacity of patient and improving the quality of his life. The basic requirements are met to the medicinal product for the relief of migraine attack are simplicity of using and dosage; efficacy in the treatment of various forms of migraine; prompt start of action and high efficiency; relieving associated symptoms (nausea, vomiting, photo- and acousticophobia); recovering or significant improvement of health and workability; reduction rate of headache relapse

after taking the medicine; acceptable tolerability profile [4, 5, 7, 30].

It is important to consider the intensity of headache while choosing a medication to relieve an attack. Choosing the pre-medication for relieving attacks has to be based on the previous experience of the taking of medicines (efficacy, availability of side reactions), preferences and expectations of patient, severity of the alleged attack. Nowadays the "sleeping" tactic is recognized as incorrect. Migraine attacks can last up to 72 hours, and the more time passes since the first symptoms of migraine was appeared, the lower effect of therapy will be reached [10, 17].

There are two principles of migraine attacks relief — the first one is a phased strategy of treatment (therapy is beginning by a simple combination of analgesics and, if it is necessary, the triptans are added) and the second one the integrated method is stratified. The stratified method is based on assessment of the impact of migraine on daily activities of the patient using the scale MIDAS (Migraine Disability Assessment Scale) [31–33]. Depending on the results this questionnaire allows you to select a treatment strategy. MIDAS questionnaire passed a series of thorough scientific tests and was considered as reliable and consistent. This questionnaire has many opportunities for practical application as the way of assessing the quality of life of the patient and the need to conduct medical treatment, determination of patient management, and cost of therapy, increase mutual understanding between doctor and patient. In addition, with help of MIDAS doctor can assess the effectiveness of treatment carried out, in particular, changes in quality of life according to the background of the chosen therapy in 3, 6 and 12 months after initiation of therapy. Depending on the answers to five basic questions about the loss of time due to headache in three main areas of life (education and employment, work at home and family life, sports or social activity) the extent of the migraine severity is detected [33].

If a patient suffers from weak or moderate intensity attacks, lasting no more than 1 day it is recommended to use simple or combination analgesics, including nonsteroidal anti-inflammatory drugs: ibuprofen, diclofenac, acetaminophen, naproxen, ketorolac, aspirin, and medical products of codeine (solpadeyin, sedalhin, pentahlin et al.). Ibuprofen, diclofenac have faster cupping effect of migraine in comparison with other NSAIDs. It is important that many patients have expressed atony of the stomach and intestines, during an attack of migraine, so the absorption of drugs taken orally, is violated. In this regard, especially in the presence of nausea and vomiting, antiemetic drugs are fitting; they simultaneously stimulate peristalsis and improve absorption, metoclopramide, domperidone 30 minutes before the intake of analgesics.

Ergotamine preparations possessing vasoconstrictor effect on the smooth muscle of the vessel wall, were widely used in the past, are less used nowadays [7].

At high pain intensity and long lasting attacks (24-48 hours or more) it is recommended design to specific therapy. "Gold standard", the most effective tools that can remove the migraine pain in 20–30 minutes, is the so-called "triptanes". Under the uniform anatomical therapeutic and chemical classification of drugs — classification system ATC (Anatomical Therapeutic Chemical classification system) — triptanes form a group N02C — selective 5HT<sub>1</sub>-receptor agonists, serotonin (N — drugs acting on the nervous system; N02 — analgesics; N02C — recommended to take in migraine attacks).

By acting on 5-NT<sub>1</sub> receptors located as in the CNS and as in the periphery, these drugs block allocation pain neuropeptides selectively constrict dilated blood vessels during an attack of the pachymeninx and terminate migraine attacks.

Currently they registered in the world 7 INN names of triptans: almotriptan, zolmitriptan, naratriptan, rizatriptan, sumatriptan, frovatriptan, eletriptan.

According to the Ukrainian State Register of drugs today in Ukraine they registered 11 trade names (excluding the dosage and number of tablets per pack) of drugs from the group "triptans", that are recommended to relieve migraine attacks including zolmitriptan (Zolmihren, Rapimih, Zolmitriptan), sumatriptan (Alhomaks, Sumamihren, Mihranol, Antymihren-Health Amihren, Stopmihren, Imihran,) frovatriptan (Frovamihren). Unfortunately, the pharmaceutical market of Ukraine does not have any kind of triptans in intranasal, intravenous, in the form of rectal suppositories that can be used by patients for quick relief of migraine attacks. These dosage forms are also very suitable for use by patients when an attack of migraine is accompanied by nausea and vomiting.

The effectiveness of triptans is much higher in their early prescription, within 1 hour after the beginning of migraine attack. Early prescription can avoid the further development of the attack, reduce the duration of headaches, prevent its return, quickly restore the quality of life of patients [1, 5, 7, 20, 34].

Preventive treatment is prescribed individually for each patient. The duration of a course of treatment should be sufficient: from 2 to 6 months depending on the severity of migraines. Pharmacological remedy used for the prevention of migraine include several groups: beta-blockers (propranolol, metoprolol) and medicines that have alpha adrenoblocker effect (dihydroergocriptine), calcium channel blockers (verapamil, nimodipine), antidepressants (amitriptyline, nortriptyline, fluoxetine), NSAIDs (ibuprofen, diclofenac, ketoprofen, naproxen), anticonvulsants (valproic acid, topiramate, gabapentin, lamotrigine) [5, 7, 20].

Notably, vascular, nootropic drugs and antioxidants (Fezam, Phenotropil, tsynnaryzyn, Picamilon, stuheron, cavinton, lutsetam, meksydol et al.), which are now widely prescribed people with migraine do not have specific anti-migraine action. At the same time, they can be incorporated into the scheme of complex therapy of migraine in older patients with mild cognitive impairment and symptoms of dyscirculatory encephalopathy. In case of evidence of venous dysfunction drugs improving venous outflow can be used (detraks, aescusan).

If a patient with migraine has comorbid disorders, treatment should be directed not only to prevent and relieve the actual pain attacks, but also against these unwelcome migraine companions (treatment of depression and anxiety, normalization of sleep, prevention of autonomic disorders, effect on muscle dysfunction, treatment of diseases of the gastrointestinal tract and other pain syndromes) [13, 23, 27].

Thus, we can drive to a conclusion, that nowadays, migraine is considered as a chronic brain disease that leads to severe desadaptation of patients and significant economic losses and requires an individual method to diagnosis and therapy. Today there is a wide range of drugs that are recommended to use as for the relief of migraine attacks, as for preventive therapy to reduce the frequency and intensity of attacks. Anti-migraine and preventive therapy can significantly improve the quality of life of patients suffering from migraine.

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## СУЧАСНІ ПІДХОДИ ДО ДІАГНОСТИКИ ТА ЛІКУВАННЯ МІГРЕНІ

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У статті представлений огляд літературних даних, присвячених одному з основних видів первинного головного болю — мігрени. Використання сучасних скринінгових методів дозволяє підвищити рівень діагностики пацієнтів, які страждають від нападів мігрени; оцінити вплив мігрени на якість життя пацієнтів. У цьому огляді описані сучасні підходи до терапії мігрени, вимоги до препаратів, що застосовуються для купірування нападів мігрени. А також наведено аналіз фармацевтичного ринку триптанів в Україні.

**Ключові слова:** мігрень, триптани, якість життя.

## СОВРЕМЕННЫЕ ПОДХОДЫ К ДИАГНОСТИКЕ И ЛЕЧЕНИЮ МИГРЕНИ

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В статье представлен обзор литературных данных, посвященных одному из основных видов первичной головной боли — мигрени. Использование современных скрининговых методов позволяет повысить уровень диагностики пациентов, страдающих от приступов мигрени; оценить влияние мигрени на качество жизни пациентов. В данном обзоре описаны современные подходы к терапии мигрени, требования к препаратам, которые применяются для купирования приступов мигрени. А также приведен анализ фармацевтического рынка триптанов в Украине.

**Ключевые слова:** мигрень, триптаны, качество жизни.