

on the sensitivity of tissues to insulin in such patients. The exception is beta-blockers with vasodilating properties (carvedilol, nebivolol). The peculiarity of beta-blockers with vasodilating properties does not have a negative effect on glucose metabolism.

The treatment of patients with arterial hypertension with concomitant diabetes requires consideration of the individual risk of development of complexity and the differentiated tactic depending on it. For people with a very high risk of complications, the priority goal is to lower blood pressure. It is possible to apply any preparations of the first row, which at a particular patient effectively lower blood pressure and do not cause side effects. In patients with moderate risk of complications it is expedient to use a metabolically neutral drug: angiotensin-converting-enzyme inhibitor (ACE inhibitor), Calcium channel blockers (CCB), Angiotensin II receptor blockers (ARBs). If patients have a high risk of complications, it is advisable to use metabolically neutral drugs: angiotensin-converting-enzyme inhibitor (ACE inhibitor), Calcium channel blockers (CCB), Angiotensin II receptor blockers (ARBs).

Glucose control is an important component of treating such patients. Lowering the level of glycemia contributes to a decrease in the frequency of microvascular complications (retinopathy, nephropathy, neuropathy), although it has no significant effect on the frequency of macrovascular complications (stroke, myocardial infarction, atherosclerotic lesions of peripheral arteries). The purpose of the treatment is to normalize the plasma glucose and reduce the glycosylated hemoglobin (HbA1c) to less than 7.5%.

Consequently, it can be concluded that glycemic control, glycosylated hemoglobin, and well-founded appointment of antihypertensive therapy, taking into account the risk of complications, are of fundamental importance in the treatment of patients with comorbidity (arterial hypertension and diabetes). Antihypertensive therapy for diabetics should be considered taking into account the renoprotective effects of the ACE inhibitor, ARBs. If it is not possible to use the ACE inhibitor, ARBs, then cardioselective beta-blockers or non-dihydropyridine Calcium channel blockers should be preferred.

Malyk N.V.

**VEGETATIVE – VASCULAR DYSTONIA AS A COMPONENT OF
COMORBIDITY IN GENERAL PRACTICE**

Kharkiv National Medical University, Kharkiv, Ukraine

Vegetative-vascular dystonia is a multifactorial, interdisciplinary disease that is associated with impaired neurohumoral and endocrine regulation of the tone of the cardiovascular system, respiratory system, and the gastrointestinal tract. As a rule, many mental, neurological and somatic disorders accompanied by vegetative dysfunction (depression, ischemic heart

diseases, arterial hypertension, bronchial asthma, diabetes mellitus, irritable bowel syndrome etc.).

According to numerous epidemiological studies in the population, vegetative disturbances occur in 25-80% of cases. People, who consider themselves healthy, also have autonomic dysfunction. Vegetative mechanisms are involved in the development of all pathological conditions. In some cases, they have a key role in the pathogenesis, and in some - they occur again in response to damage to certain systems and tissues of the body.

Classification of autonomic disorders (A.M. Wein, 1988) is based on the principle of separation of the pathology of suprasegmental and segmental disorders, as well as their primary and secondary nature. Peripheral autonomic disorders result from the defeat of peripheral (segmental-peripheral) vegetative structures that are part of the sympathetic or parasympathetic nervous system. They are manifested by dysfunction of visceral systems (peripheral autonomic insufficiency syndrome) or autonomic trophic disorders (angiotrophalgic syndrome). Central autonomic disorders associated with dysfunction of the central (suprasegmental) integrative structures: stem, diencephalon, limbic system, cerebral hemispheres. Autonomic disorders of central genesis are often accompanied by polymorphic mental disorders (psycho-vegetative syndrome) and endocrine-metabolic disorders.

According to another working classification (V.I. Makolkin and S.O. Abbakumov, 1985) autonomic disorders are divided according to etiology, clinical syndromes and severity.

Etiological forms include essential (constitutional hereditary), psychogenic (neurotic), infectious-toxic; the form associated with physical exertion and form due to professional factors.

Clinical symptoms are divided into cardialgic, tachycardial, hypertensive, hypotonic, peripheral vascular disorders, autonomic crises, respiratory and asthenic syndromes and myocardiodystrophy. Symptoms of vegetative-vascular dystonia are associated with impaired regulatory functions and the interaction of two parts of the nervous system, and not with the pathology of some internal organ. Therefore, the patient may have subjective complaints from the work of various organs that imitate some disease. But at the same time there is no organic pathology, since clinical symptoms are associated with an imbalance of the nervous system.

The basis of the pathogenesis of autonomic dysfunction is a violation of the integrative activity of the supersegmental vegetative structures. The main factors for the development of pathogenesis are hereditary predisposition, endocrine disorders of the body (pubertal and menopausal periods), somatic diseases, stress, neuroses, organic lesion of brain with damage to the diencephalic structures. The increased influence of one of the part of the autonomic nervous system leads to a compensatory tension in the regulatory mechanisms of another part.

The diagnosis of vegetative-vascular dystonia is established on the basis of subjective and objective signs of disruption of the activity of the autonomic nervous system and the characteristic complaints of the patient. But the symptoms of organic damage to the nervous system are absent. It is necessary to pay attention to the objective manifestations of vegetative dysfunctions: dermatographic reaction, the nature of sweating, pulse, blood pressure, depth and rhythm of breathing, the presence of eyelid tremor and fingers, speech clarity, increased tendon reflexes, slight changes in muscle tone. According to the classification, autonomic dysfunction syndrome includes both bright vegetative crises, long subfebrile conditions, neurogenic syncope, and vascular-trophic local syndromes, orthostatic hypotension, neurogenic bladder.

Vegetative dysfunction includes three major syndromes. The first is a psycho-vegetative syndrome characterized by permanent paroxysmal disorders caused by dysfunction of non-specific brain systems.

The second is a syndrome of progressive vegetative insufficiency, manifested by impaired consciousness in orthostatic hypotension, impotence, increased blood pressure in a horizontal position, decreased attention, urinary incontinence, constipation, dysarthria, angina.

The third is the syndrome of vegetative-vascular-trophic disorders caused by damage to the nerves, plexuses and roots that innervate the upper extremities (Raynaud's syndrome, tunnel syndromes).

Vegetative dysfunction manifests permanent and paroxysmal option. Most sympathetic adrenal crises meet the criteria for a "panic attack".

Panic disorder is a condition characterized by a complex combination of psychological and somatic symptoms. Paroxysm begins with sudden fear or discomfort lasting a few minutes. Its structure includes the following vegetative symptoms: 1) rapid heartbeat, increased sweating, trembling in the body, dry mouth; 2) autonomic-visceral manifestations: difficulty breathing, discomfort or pain in the chest, nausea, feeling hot or chills, numbness of the extremities; 3) emotional signs: dizziness, nausea, weakness, derealization, depersonalization, fear of death.

According to the information of the Ministry of Health of Ukraine, patients with vegetative dysfunction are examined and treated in outpatient clinics by a family doctor and a neurologist. The average duration of treatment is from 3 to 12 days.

The principle of studying the functional status of the autonomic nervous system is based on a clinical and experimental approach. Specialists use capillaroscopy, histamine intracutaneous test, recording pupillary reactions and autonomic reflexes, electroencephalography, electrocardiography, heart rate variability, functional state of the stomach, excretory function of the kidneys, indicators of carbohydrate metabolism, clinical blood analysis, heat regulation (Wein, 1993).

Treatment of vegetative-vascular dystonia should be based on three principles: etiological, pathogenetic and symptomatic treatment. To eliminate the causes of autonomic disorders, correction of emotional disorders, treatment of manifestations of asthenia, physical and mental fatigue, regulation of autonomic disorders, correction of personality traits, elimination of negative external causes, detection and elimination of somatic disorders, sleep disorders are used. Comprehensive treatment of vegetative-vascular dystonia includes the appointment of drug therapy, rational psychotherapy and autotraining, physiotherapy, massage.

Thus, optimal management of autonomic disorders will improve the condition of patients with comorbidity, prevent the progression of combined pathology.

Malyk N.V., Krylevska S.I.
MANAGEMENT OF PAIN SYNDROM IN PATIENTS WITH
COMORBIDITY

Kharkiv National Medical University, Kharkiv, Ukraine

About 90% of diseases are associated with pain according to the World Health Organization. Pain is the main reason for seeking primary medical care and is most often a manifestation of many comorbid diseases: diabetes mellitus and neuropathia, stroke and joint contractures, herpes zoster and intercostal neuralgia, fibromyalgia and arthritis, irritable bowel syndrome and autonomic disorders, radiculopathy and scoliosis, ankylosing spondylitis etc. Pain that lasts for more than 12 weeks is defined as chronic. Chronic pain is a pressing medical and social problem, because it depletes a person's emotional resources, leads to social and labor maladjustment, and economic losses. Chronic pain obligatorily aggravates the course of any comorbidity.

Family doctors must distinguish four types of pain: nociceptive, neuropathic, dysfunctional and mixed to provide effective treatment for various pain syndromes.

Nociceptive pain plays a physiological protective role and occurs in response to the activation of nociceptors of peripheral tissues with a real damaging effect (for example, in the inflammatory process, muscle spasm, burn).

Neuropathic pain occurs when the primary damage or dysfunction of the peripheral or central nervous system. It is prone to chronicity, does not perform a protective function and significantly reduces the patient's quality of life. The most common causes of neuropathic pain are: mono- and polyneuropathy (diabetic, toxic), infectious diseases involving the nervous system (postherpetic