Advantage Of Physical Methods Of Treatment Of Patients With Neurocirculatory Dystonia

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ABSTRACT

The article presents questions devoted to modern aspects of the use of therapeutic physical factors in patients with neurocirculatory dystonia.

Keywords: neurocirculatory autonomic dysfunction, method, dystonia, physiotherapy .

Introduction

Autonomic disorders are one of the pressing problems of modern rehabilitation medicine and occur in 50-80% of the adult working population. Neurocirculatory dystonia (NCD) is a syndrome of functional disorders of the cardiovascular system, caused by inadequacy of its regulation. NCD is one of the variants of somatoform autonomic dysfunctions (SFAD), which can not only be a prestage of a particular disease, but also significantly affect the quality of life, significantly reducing ability to work.

Materials And Methods

In the literature, there are a number of terms under which SFAD is hidden: vegetosis, cardiac neurosis, neurocirculatory dystonia, vegetative-vascular asthenia, vegetative-visceral dystonia, da Costa syndrome, autonomic dystonia syndrome, excitable heart of a soldier and SFAD itself.

In ICD-10 in section F 45.3 there is a description: "Somatoform dysfunction of the autonomic nervous system. The symptoms presented by patients are similar to those that occur when an organ or organ system is damaged, predominantly or completely innervated and controlled by the autonomic nervous system, i.e. cardiovascular, gastrointestinal, respiratory and genitourinary systems."

Results And Discussion

The action of therapeutic physical factors should be aimed at the following pathogenetic links of NCD:

1. Violation of cortical-hypothalamic and hypothalamic-visceral relationships;
2. Excessive sympathetic-adrenal stimulation with clinical effects of hypercatecholaminemia;
3. Increased reactivity of peripheral vegetative formations responsible for the functions of internal organs;
4. Trophic, metabolic and regulatory disorders of the activity of internal organs, caused by their excessive stimulation or distortion of neuroendocrine regulation.

From these positions, physiotherapeutic treatment can be considered pathogenetic therapy, although its focus may vary depending on the leading symptoms, i.e. pathogenetic and symptomatic treatment in this case often overlaps or, in any case, is difficult to distinguish.

The goal of physical therapy for NCD: correction of autonomic disorders. Therapeutic physical factors can correct autonomic disorders, influence the regulation of vascular tone and relieve cardialgia, arrhythmias, neurotic and asthenodepressive syndromes, and reduce high blood pressure (BP) (Table 1). Physiotherapy technologies should be considered as methods of "functional regulation" or ways to increase the functional reserves of the body.

Table 1

Physical methods of treating patients with neurocirculatory dystonia [2]

Sedatives	Electrosleep therapy. Baths (iodine-bromine, pine). Drug electrophoresis of sedatives, tranquilizers, neuroleptics and antidepressants. Local darsonvalization of the head.
Psychorelaxing	Visual selective photochromotherapy. Phytoaromatherapy.
Tonic	Contrast baths. Souls (circular, Charcot, Scottish). General SUV and DUV irradiation. Thalassotherapy.
Psychostimulants	Dry air bath (sauna). Drug electrophoresis of psychostimulants and cerebral circulation stimulants. Baths (pearl). Heliotherapy.
Vasodilators	Galvanization. Sodium chloride baths. Inphytatherapy. Local darsonvalization of the collar area. Turpentine bath.
Vasoconstrictors	Drug electrophoresis of adrenergic agonists.
Vegetocorrecting	"Dry" carbon dioxide baths. Drug electrophoresis of cholinomimetics and cholinesterase inhibitors. Drug electrophoresis of anticholinergic drugs. Electrophoresis of ganglion blockers. Drug electrophoresis of alpha and beta adrenergic receptor stimulants. Medicinal electrophoresis of vitamin B6.
Anticardialgic	Local darsonvalization of the precordial area. SUF – irradiation of the precordial area.
Antiarrhythmic	Medicinal electrophoresis of potassium chloride, solution of anaprilin, novocainamide, lidocaine.

Electrosleep therapy. Reducing the processes of excitation in the central nervous system due to the sedative and tranquilizing effects of pulsed currents helps restore the functions of the suprasegmental parts of the autonomic nervous system and reduce the activity of its sympathetic influences. Use rectangular current pulses with a duration of 0.2-0.5 ms, a frequency of 10 imp*s-1 for 40 minutes; daily, course – 12-16 procedures.

Iodine-bromine baths. Bromine and iodine ions enhance and concentrate inhibitory processes in the central nervous system (CNS) and normalize thyroid function. They have a "mild" effect on various body systems and are well tolerated by elderly and senile patients. A course of iodine-bromine baths has a beneficial effect on the circadian rhythms of the functional state of the cardiovascular system. The content of iodine and bromine ions in the bath should be at least 10 and 25 mg/l, respectively, temperature 35-37oC, for 10-15 minutes, every other day or 2 days in a row

with a break on the third; course 15-20 baths [3].

Pine baths. They enhance inhibition processes in the cerebral cortex as a result of the effect of vapors of volatile aromatic substances on the olfactory receptors of the nose. Prepared by adding powdered or liquid pine extract. The pharmacy chain more often supplies natural pine extract and pine extract in powder or briquettes (50 g each). The water temperature is indifferent – 35-37oC, the duration of the procedure is 10-15 minutes. The course of treatment is 10-20 baths, daily or every other day.

Visual selective photochromotherapy. Selective chromotherapy uses the influence of visible radiation of various ranges, which can influence the general level of excitability of the brain through thalamocortical associative pathways and nonspecific subcortical structures and, thus, correct the psycho-emotional state of a person. Red and orange colors have an exciting effect, blue and violet have an inhibitory effect, and green colors harmonize inhibitory-excitatory processes in the central nervous system.

Phytoaromatherapy. As a result of inhalation of volatile aromatic substances through irritation of olfactory receptors, the tone of the subcortical centers of the brain, the reactivity of the body and the psycho-emotional state of a person changes, fatigue is relieved, performance increases, and sleep improves. With the right combination of phytoaromatherapy methods, it is possible to influence the physical and psycho-emotional state of a person. The aromas of mixed and deciduous forests are recommended for patients with functional disorders of the nervous system to normalize sleep, reduce irritability and improve mood. Patients with NCD use essential oils of mint, anise, lavender, chamomile, sage, mignonette, lemon and sandalwood, which have a positive effect on the hemodynamics of the brain, normalize the vegetative status, reduce blood pressure, and help improve attention and memory [4].

Secondary physioprophylaxis. It is advisable to conduct courses of physical prevention in the fall and spring, when the possibility of development or exacerbation of neurological manifestations, seasonal emotional disorders during the period of expected psycho-traumatic situations or after stress increases.

Conclusion

To enhance the healing effect of water procedures, the treatment complex should include physical factors of the air environment: halotherapy, phytoaromatherapy, aeroionotherapy.

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