ROLE OF SCENAR IN BALANCING THE AUTONOMIC NERVOUS SYSTEM

Medical contributors: Dr.Iosif Semikatov, MD, Dr.Konstantin Nikitin, MD,

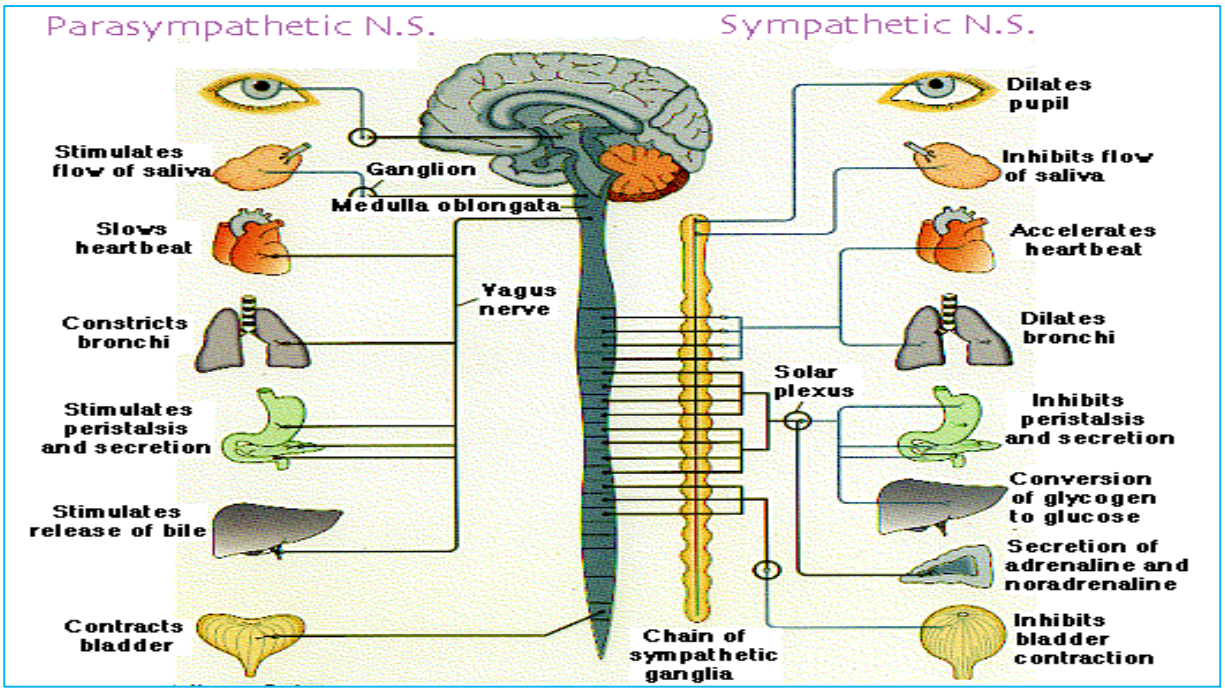
Nervous system consists of two main parts, the central nervous system (CNS) and the peripheral nervous system (PNS). The PNS is divided into three separate subsystems, the somatic, autonomic, and enteric nervous systems. Somatic nerves mediate voluntary movement. The autonomic nervous system is further subdivided into the sympathetic and the parasympathetic nervous systems.

The somatic nervous system, whose activity is associated with volitional actions and reactions of the body, the **autonomic nervous system** (ANS) is involved in control, regardless of the processes in the body that a person needs. It is characterized by the regulation of the functions of internal organs, the maintenance of homeostasis of the body (the constancy of the internal environment) and participation in behavioral reactions. The control of habitual and vital activities such as digestion, respiration, blood circulation, etc., is a function of the autonomic nervous system.

The autonomic nervous system consists of:

- central autonomic nuclei (in the brain and spinal cord)
- autonomic nodes (ganglia)
- peripheral nerves ending in various organs.

The human autonomic system is divided into *sympathetic* and *parasympathetic* parts. The effect of these parts on the body is largely opposite. Most often, two divisions of the autonomic nervous system have the opposite effect on the organs innervated by them. Under the influence of the sympathetic division, for example, heart contractions become more frequent and intensified, blood supply to working muscles improves, bronchi expand, dissimilation processes intensify, body temperature rises, and more energy is supplied. The parasympathetic division has the opposite effect.



Impulses going through it lead to a slowdown in heart contractions, narrowing of the bronchi, stimulation of the secretion of digestive glands, increased synthesis processes in cells, etc. Because of the parasympathetic division, the body restores the energy spent during physical work.

The regulation of the functions is best provided by the double autonomic innervation of the internal organs. Only as a result of the coordinated activity of the sympathetic and parasympathetic divisions it is possible to normalize the processes associated with nutrition, respiration, metabolism and energy, and other processes in the body.

Activation of the ***sympathetic nervous system*** contributes to a more intense work of the body. The sympathetic nervous system constricts blood vessels and increases blood pressure, thereby diverting blood from organs whose functions in a stressful situation are not necessary for the survival of the body, and, on the contrary, increases blood flow to the vital and necessary organs during stress (for example, during stress, the skin turns pale because the blood flow in it decreases in favor of the skeletal muscles).

Activation of the ***parasympathetic nervous system***, on the contrary, helps to restore the resources lost by the body. The parasympathetic nervous system is responsible for ensuring that the body accumulates and restores energy reserves during sleep, and rest. For example, it weakens the work of the heart (the heart rate decreases) and stimulates the glands and muscles in the digestive tract. The parasympathetic system helps restore spent energy reserves, regulates the body during sleep.

The organs of blood circulation, respiration, digestion, excretion, reproduction, as well as metabolism and growth are under the control of the autonomous system.

The importance of a proper balance between the sympathetic and parasympathetic divisions.

When our sympathetic system is running 24 hours a day, 7 days a week, we develop typical chronic illnesses and chronic fatigue because:

Decreased function of the parasympathetic division - meaning the activation of the “fight and flight” in adrenaline, which stimulates the heart to work harder, sending blood to the muscles so that we can fight and run, so we do not have a normal blood supply and innervation to our intestines, and we do not produce enzymes. Food will not be digested even if we follow an ideal diet.

Decreased function of the parasympathetic division - meaning that the large intestine will not do its job, its main function is to conserve water, since the digestive sludge is delivered to the large intestine, which usually extracts water. Without normal blood supply and innervation, a waxy oily coating forms, the intestinal wall becomes leaky and inflamed. This allows large protein molecules to enter the bloodstream and cause allergies. The blood tries to flush them out through the sinuses, which in turn causes sinusitis. Garbage feeds Candida and parasites. Killing them does little, they will keep coming back until the parasympathetic system is reactivated.

When the balance is disturbed, and the sympathetic system is hyperactive (it also includes all the endocrine glands):

The **brain** produces more serotonin, dopamine and norepinephrine.

The **thyroid gland** produces more hormones to speed up the metabolism.

The **parathyroid gland** produces more hormones to speed up the metabolism, as well as more hormones to increase the amount of calcium used to conduct nerve impulses during muscle contraction.

The **pancreas** produces more insulin.

The **adrenal glands** produce more adrenaline and cortisol, so more sugar will be available.

The **gonads** will produce more sex hormones to make us stronger.

In general, we run out of nutrients because we can't absorb them; we are running out of raw materials for the production of hormones, and we are driving ourselves to exhaustion.

The lack of adrenaline (the main hormone of the sympathetic system) makes it difficult to deal with stress, the lack of cortisol and insulin leads to hypoglycemia, the entire metabolism slows down and we begin to gain weight, our brain cannot function clearly, and the lack of sex hormones makes us disinterested in sex. The immune system is weakened and we are more susceptible to infectious diseases. All this leads to anxiety, anger and depression.

In such situations, correction of the sympathetic and parasympathetic systems is necessary. Hopefully, with the help of various complex treatments, the anterior hypothalamus is activated and stimulates the parasympathetic system, thereby causing a gradual shift in activity from the sympathetic system to the parasympathetic system and ultimately restoring the balance between them.

SCENAR therapy helps to achieve this goal.

The very name of SCENAR is the key to understanding of how it works.

SCENAR therapy Systemic effects:

- Effect of general regulation and sanogenous effect
- Effect of antioxidant systems activation
- Effect of autonomous neural system
- Effect of stabilization of an autonomous neural system
- Activation of an immune response

There were many clinical trials of SCENAR device conducted, which discovered that it has antiradical effect (and its efficiency is higher than of anti-oxidant medicines). SCENAR device also has significant regenerative effect. It is systemic, which means it can be observed not only in the zone of direct SCENAR treatment, but also at distant body parts (i.e., limbs, etc.). Additionally, SCENAR device has significant sanogentic effect – the effect of launching the body mechanisms of self-restoration. SCENAR treatment increases metabolism, vascular regulation, nervous regulation, and has anti-pain effect. This allows to effectively use SCENAR to provide surgery side care, making the process of recovery faster and rehabilitating patients after surgeries and complex diseases

SCENAR is one of the few technologies that allows:

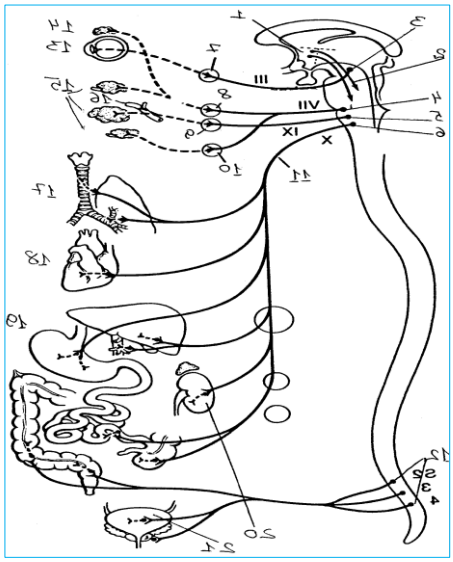
- "Reboot" the autonomic nervous system (ANS).
- Calm the overexcited sympathetic nervous system (SNS).
- Excite the suppressed parasympathetic nervous system (PNS).
- Keep it aroused until the relaxation reaction occurs.
- Synchronize the CNS.

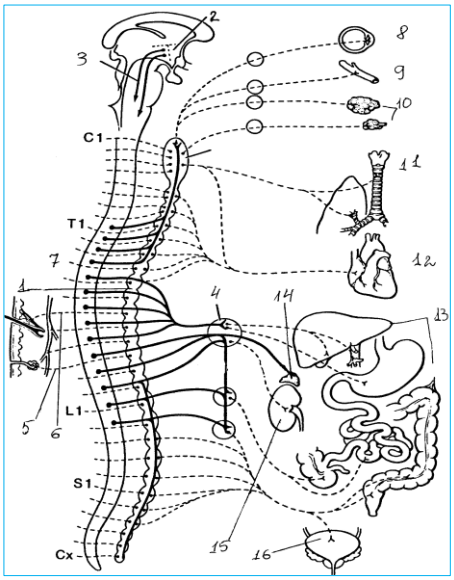
The central effect of SCENAR stimulation was found, consisting in the generalized activity of the cerebral cortex and hypothalamic structures, among them the leading role is played by the activation of the anterior hypothalamus, accompanied by an increase in parasympathetic tone.

The high correlation of activation of the anterior hypothalamus with an increase in alpha-like activity in the occipital leads was confirmed. The visual cortex of the brain. Thus, an increase in alpha activity in the visual cortex can serve as an indicator of an increase in the activity of the anterior hypothalamus and, accordingly, parasympathetic tone.

The effect of SCENAR-stimulation persists in aftereffect and can be detected one day after the treatment.

SCENAR communicates with the autonomous nervous system





Parasympathetic Nervous System

Sympathetic Nervous System

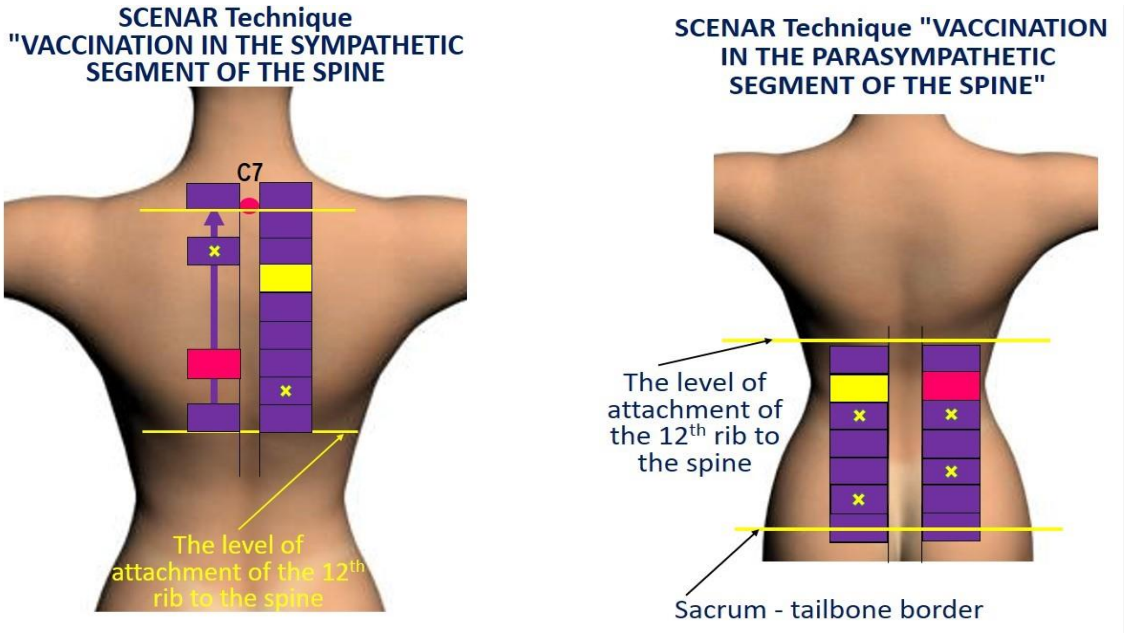
SCENAR signals, carried out from the "right points" and in the "right" order, perform the expected impact on the whole organism.

Under the influence of SCENAR impulses coming through the **sympathetic nerve fibers**, heart contractions become more frequent and intensified, blood pressure rises, glycogen in the liver and muscles is broken down, blood glucose increases, pupils dilate, sensitivity of organs increases, work efficiency increases, bronchi shrink, contractions of the stomach and intestines oppress, the secretion of gastric and pancreatic juice reduces, the bladder relaxes and its emptying slows down.

Under the influence of SCENAR impulses coming through the **parasympathetic nerve fibers**, heart contractions slow down and decrease, blood pressure decreases, blood glucose levels decrease, contractions of the stomach and intestines are stimulated, secretion of gastric and pancreatic juice increases, etc.

The regulation of their functions is best provided by the double autonomic innervation of the internal organs.

Only as a result of the coordinated activity of the sympathetic and pasympathetic departments, the normal course of processes, associated with nutrition, respiration, metabolism and energy and other processes in the body, is possible.



SCENAR Techniques in the parasympathetic division are intended for***:***

- Direct enhancement of the influence of the parasympathetic division of the ANS on the recovery processes.
- Indirect influence on the acceleration of the body's adaptive processes.

SCENAR Techniques in the parasympathetic division are intended for:

- Direct enhancement of the influence of the sympathetic division of the ANS on the adaptive capabilities of the body:

o For accelerated "scrolling/ passing" of acute processes.
o To activate the "scrolling/ passing" of chronic processes.
- Indirect influence on the function of the parasympathetic division of the ANS and strengthening of the restorative functions of the body. These methods are recommended to be used in repeated courses of SCENAR therapy.

The goal is to activate the regulatory function of the autonomic (vegetative) nervous system (ANS).

The task is an indirect activation of one division of the ANS due to the direct impact of the opposite division of the ANS.

RITMSCENAR devices are extremely easy to use pretty much ANYWHERE by pretty much ANYONE. SCENAR technology works DIRECTLY with the nervous system: EFFECTIVE, FAST, SAFE, And SIMPLE. They are called “Personal Health Assistants”

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2. Cherkasov “Central effect of SCENAR applications” Rostov on Don 2001.
3. “Effects of SCENAR therapy on Autonomic Nervous System”; 5th International Conference and Expo on Acupuncture and Oriental Medicine, 2017 Chicago, USA
4. Jerry Tennant "The Connection between the Autonomic Nervous System and the Pathway to Disease"