

Neurovegetative Correction of Diencephalic – Hyperkinetic, Catabolic Adrenergic Syndrome

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ABSTRACT

Hibernation proposed by Irving and Krog (1954) was developed by H. Laborit and P. Huguenard, which, today, is very current and important in modern medicine as neurovegetative correction (NVC): Curative anesthesia, neurovegetative blockade, artificial hibernation, capable of providing the minimal metabolic rate at the parabiosis level, and phylogenetic descending cerebral activity. It is important! NVC is not block-free and inhibits excessive impulses, prevents them from attenuating, and installs normal blood pressure, heart rate, body temperature (T°C), blood (pH), adrenal-cholinergic balance, maintaining hibernation homeostasis. From the multiple neurovegetative correction (NVC) schemes of cerebral insufficiency (CI) of various causes (traumas, onco, stroke, neuroinfections, metabolic, hypoxic, etc.), ongoing 35 years, retrospectively, arranged the pattern, with three essential syndromes manifestation of CI: Diencephal - hyperkinetic (catabolic adrenergic), extrapyramidal - eukinetic (balanced), and mezencephal - hypokinetic (anabolic cholinergic). NVC is multimodal and selective inhibition, correction, and analgesia. Thus, by performing the loco-regional correction of the three symptoms of CI and systemic by appropriate medications, NVC can be obtained. Here we describe, diencephal - hyperkinetic syndrome (catabolic adrenergic) → psychic, motor, and vegetative agitation (↑blood pressure [BP], heart rate [HR], T0C) return to normal by administering the usual doses of dexmedetomidine, D with the influence of G-protein and super selective α2-Adreno agonists, as a cerebrospinal locoregional neurotransmitter, D installs anxiolysis, anesthesia, ↓ T0C (central) produces sedation without inhibiting the respiratory center (important in patients with sleep apnea) and central and systemic cerebral effect, α2-Adreno agonist (previously used clonidine) ↓BP, HR, T0C (peripheral), to optimize systemic perfusion pressure, in turn dependent on mean BP and capillary resistance, also stimulates the elimination by endotheliocytes of the NO vasorelaxant → antioxidant, which catches the superoxide O₂⁻, at the same time influencing and mitochondrial permeability transition pore dependent Ca⁺⁺uniporter, mPT pore. Citicoline restore

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the parasympathetic nervous system versus sympathetic, the histamine reaction is annihilated with H1 antihistamines, and endorphin-enkephalin insufficiency is substituted by morphine, and the inhibition by hypnotics (propofol, thiopental) is used for the ineffectiveness of $\alpha 2$ -adrenoagonists sedation. NVC inhibitions loco-regional: Big hemispheres→hypnotics (propofol, thiopental); subcortex→benzodiazepines (midazolam, dormicum); and reticular formation of the brain→ antipsychotics. Systemic is possible by blockade - stimulation adrenergic - cholinergic, histamine-serotonin, adenosine, opiate, and endorphin-enkephalin substitution, (morphine) and non-narcotic superselective $\alpha 2$ -adrenoagonist analgesics, Dexmedetomidine (D). Some peculiarities have been described by us in the microcirculation-mitochondrial recruitment of microcirculatory mitochondrial distress syndrome by reducing pCO₂ (AV gap), anionic hiatus, and urinary anionic hiatus, under optimize systemic perfusion pressure, in turn, dependent on mean BP and capillary resistance.

Key words: Diencephalon - hyperkinetic (catabolic adrenergic) syndrome, extrapyramidal - euchinetic (balanced) syndrome, mezencefal - hypokinetic (anabolic cholinergic) syndrome, dexmedetomidine, neurovegetative correction, systemic perfusion pressure

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In the photo, Maria and I are giving a presentation in Barcelona (Spain) of the absence of maternal mortality in terminal obstetric situations during the 35-year emergency service, on Global Summit on Medicine, Pharmacology and Cancer Research with WAMS Barcelona (Spain) 2018.

This scientific material has been cumulated over 35 years retrospectively in the Republic of Moldova, the Russian Federation, Middle Asia, as well as from all over the world.