Where Migraine Headaches End

Effective Treatment and Management of Migraine Headaches

INTRODUCTION:

Our approach to the treatment and management of migraine headaches yield very rewarding results that have encouraged me to reevaluate scientific literature. I went back to once again study the very basic knowledge of the morphology, anatomy, and physiology of the Trigeminal Nerve per se, and Occipital nerve particular. The key question is how is how does my simple approach bring a longer period of relief when compared to the various more complex treatment approaches that exist today?

Migraine headaches are defined by an episodic neurovascular disorder characterized by recurrent unilateral headaches accompanied by nausea, vomiting, photophobia, phonophobia, conjunctival injection, and lacrimation. Not to mention dysestheia/loss of speech, Temporal-mandibular joint pain, and dental pain.

How human and other mammals defend their life against the physical world?
Primarily, sympathetic and parasympathetic nervous system genetically designed as initial primitive internal defense mechanism. It is universal to almost all species on the earth. Its mechanism and pattern may differ in air and in water environment living species. Autonomous nervous system is an internal alert system communicating with our physical world. **The plasticity and highly fragile human body system is defenseless against the law of physics such as gravity and weight, wavelengths and light, velocity and acceleration and etc.**

Question arise how the warning system inside us work? There is a warning system with its signals embedded in our whole system as human being. Fundamental of defense mechanism in almost all species is the same. It's warning signals pronounced mostly by pain or other symptoms such as nausea, vomiting, diarrhea, Broncho-spasm, vertigo and ophthalmoplegia,

photophobia, not less hallucinations of the same. Warning signals modified by molecular receptors of sensory system:

1. **Gustatory system(taste)**
2. **Olfactory system(smell)**
3. **Vestibulo-Auditory system(balance/hearing)**
4. **Visual system, and**
5. **Somatosensory, tactile systems (touch); all are** managed by a higher sophisticated regulatory system in the brain centers. Navigation of animal life for survival in response to physical environment controlled by one and each of the somatosensory organs as first line defense mechanism. However, later in the process of evolution emotional sensory system arose from communication in the path of the civilization. Therefore, the power of emotional sense genetically imbedded in the civilized animal's brain and behavior. The Limbic system is responsible for awareness threshold and is our major emotional center. It receives input from all somatosensory organs and analyses the data to determine how safe the physical and emotional environment we are entering, is. Emotional sense modifies the concept of internal stressor as modifier of the sympathetic signals in a self-defense approach.

Factors such as bright lights and ultraviolet rays, flickering lights, as well as certain visual patterns, smells, noises, tastes may trigger migraine. Life style stressors may also trigger a migraine attack, and it has been hypothesized that visual cortical hyperexcitability can be responsible for migraine too.

The pattern of disorder consequently demonstrates depression, anxiety, generalized phobias, and other nonspecific mood disorders may add to an individual's disorder during the period of chronicity of migraine headaches.

With the broad range of manifestations, the dynamic of migraine attacks gave rise to plenty of scientific and nonscientific cause theories and hypotheses. It is important to note that most of them have yet to be scientifically proven. In order to understand our empiric treatment and

satisfactory long term results I was determined to reevaluate the theories, hypotheses, and laboratory research results from involved medical investigators within migraine headache literature. I made an outright effort for my research to be objective and critical.

Trigeminal nerve (TN), Greater Occipital nerve (GON), and all the peripheral nerves system in all vertebrate are physiologically under the control of the sympathetic and parasympathetic nerve systems. The peripheral and central nerve system is influenced to a higher degree by autonomous nerves by control of their blood supply. Blood supply is imperative for normal function of the nerve cell. 100% Oxygen required for proper survival and function of the nerve cells. Autonomous nerve system therefore plays a key role in the delivery of oxygen to central nerve system as well as peripheral nerves. A profound understanding of communication between the vascular and nerve system provides a closer understanding of the trigeminal and occipital neuralgia in our understanding of migraine.

The **autonomous nerve system** is an independent, self-managed, and self-controlled system that serves a complex multifunctional internal system of organs. Its warning system is conducted by production of cascade of toxic agents 'cytokines" which we feel it as a result as pain. Pain is a warning system which materializes the environmental dangerous condition in our consciousness. Its function continues even when the cognitive cerebral centers are out of function. The autonomous nerve system demonstrates the dual functions of pro and contra functioning systems called sympathetic and parasympathetic "nervous system". Their activities may affect human and animal emotions and vice versa.

The diffuse and broad bands network of sympathetic and parasympathetic nerve fibers therefore, make it impossible for surgeons to have a complete and successful sympathectomy, or even neurectomy. The painful malfunctions return after a period of time. Reflecting the complexity of understanding and decoding the interconnections of "rami Communicants" seems extremely challenging when it comes to Neurophysiology.

Both the sympathetic and parasympathetic nervous systems are highly functional independent systems that naturally exist to balance one another. Physiologically, there are switching systems and signals that genetically determine the silencing or desilencing of the sympathetic and parasympathetic action. For example, nerves innervating the dilator pupillary muscle are sympathetic, and nerves innervating the pupillary sphincter muscle are parasympathetic.

Migraine headache seems to demonstrate a dysbalance between sympathetic and parasympathetic innervations of the **brain-vascular system** rather than only a central cortical cause. There seems to be a chronic periodic vasoconstrictive impulse release in the parasympathetic ganglia and the associated sympathetic peripheral nerves, which are predilections to anoxia/hypoxia by vasoconstriction, not vasodilation and consequent acute inflammatory reactions, by synthesis of toxic agents of cytokines. Viability of brain cell, and peripheral nerve although depends on blood circulation. Mechanism of blood flow control, such as autoregulation depends on nitric nerves, which play a crucial role as neurotransmitter in vasodilating cerebral and peripheral nerve arteries in mammals. Endogenous nitric oxide released from the nerve innervating cerebral arteries by vasa Vasorum contribute to the maintenance of blood flow in major cerebral arteries necessary to supply blood to different brain centers and peripheral nerves. Recent molecular biologic studies demonstrate the role of key signals and biologic switches at the cell membrane level. An alteration of balance between excitation and inhibition gained transition of conductance by key signals, which are triggered when the physical environment affects closely any of the somatosensory system. In response defense mechanism activates by turning the switch toward flight to distance from the trigger influence. Pain per se is the initial infuriating signal to acknowledge the presence of unfavorable physical energy. Severity of pain or other symptoms such as hyper-salivation, dizziness, nausea/vomiting, numbness/tingling, ophthalmoplegia, dysarthria and etc. depends on duration of physical action and individual's reaction to it. For instance, exposure to fluorescent light and certain rays of the sunlight may destroy ganglia cells of retina. Extremely rapid ciliary constriction would reduce the level of the **damaging light input to the retina** and spasm of the eyelids complete the blockage of the light from further damaging action on retina. However,

initiated vasospasm within milliseconds, releases cytotoxins in the same speed which translate the whole process in acknowledgeable pain for an individual. We understand that new technology of Computer and TV screens has its own new industrial wavelength, intensity and intolerance at human retinal receptor ganglions. Continuous novel technology of 21 st century may affect human eye and brain adversely in a modifying manner within decade even centuries by **physical world**. Transition of balanced key signal toward sympathetic key signal may happen by gene modification.

Data obtained from molecular biologic studies revealed that prolonged or high intensity exposure to visible light leads to photoreceptor cell death called “APOPTOSIS”. In recent years, the problem of **phototoxicity** has become a focus of interest in the research study of eye and skin diseases.

How we treat Migraine and Craniofacial pain?

Our treatment plan includes a one session treatment with rewarding results. The therapy starts with an introductory evaluation of the patient’s medical records, medications, history, and special pain behavior. Patients with classical Trigeminal neuralgia and Occipital neuralgia are then selected after being educated about the treatment. All medications taken for migraines will be discontinued at the time of consultation. Before the treatment, individuals will return to the clinic for necessary tests (if any required). After the initial treatment, patients will return if any symptoms of pain continue or recur. They will immediately receive the treatment for the additionally affected nerve branches which may take over one hour. We request that patients temporarily put a halt to medications such as Plavix, Coumadin, aspirin, fish oil, and vitamin E a few days prior to the treatment.

We utilize administration of a sophisticated combo to the branches of the trigeminal and occipital nerves. The combo is administered meticulously in minimal portion using a very thin needle. No premedication or intravenous access is necessary. Patients may return to daily activities the very same day.

The key mechanism in DE NOVO treatment is turning the key sympathetic signals and switch toward the primary balance by silencing frail sympathetic vasoconstrictive effect. The main contribution of our treatment is to address all trigeminal nerve branches of the all three divisions accessible as well as simultaneously the greater and lesser occipital nerves with their communicating branches to trigeminal nerve. The combination formula of DE NOVO investigated in our clinic over the past 15 years, in certain proportion serving this purpose rewardingly. All components of medications used in our formula are FDA approved and for many years in use. We utilize a treatment based on years of experience and a broad neurological, molecular biological knowledge of the 21st century research and knowledge. We are courage to say we changed the past dogma of: Migraine is a lifelong disease of the patient, no cure expected.

In 96% -98% of our patients, only one treatment session eliminates migraine and craniofacial pain. The rest may return for partial limited touch up to undetected diseased nerve branches. 2%-4% of patients may have physiological complex cause for their headaches and craniofacial neuralgia.