

Administration of IV infusions of BR⁺/NAD⁺ alleviates psychological disorders and chronic pain symptoms associated with Postural Orthostatic Tachycardia Syndrome (POTS), Chronic Fatigue Syndrome, and Heavy Metal Poisoning.

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Introduction: Nicotinamide Adenine Dinucleotide (NAD) is a powerhouse signaling molecule localized in cellular compartments such as the nucleus, cytoplasm, and mitochondria. NAD controls hundreds of key cellular processes involving metabolism, mitochondrial energy production, circadian rhythms, and immune system responses. Intravenous (IV) therapy is the fastest and most controlled way of administering fluids and medications throughout the body and across the blood-brain barrier. This makes an IV injection of NAD⁺ an attractive therapeutic method for the treatment of acute neuronal damage and musculoskeletal diseases. Although research studies investigating NAD⁺ IV therapy on animal models are under rigorous experimentation and debate in biochemical research, standard assessments of NAD⁺ using clinical human trials are limited. Physio Logic NYC, an integrative medical & wellness center, performed a 3-month pilot study to analyze the regenerative effects of Brain Restorative (BR) NAD⁺ IV therapy on the recovery of clinical outpatients presenting with Postural orthostatic tachycardia syndrome (POTS), Chronic Fatigue Syndrome (CFS) and Heavy Metal Poisoning (HMP). **Methods:** Two patients were selected to complete a physician certified, “self-report symptom checklist” throughout their BR⁺/NAD⁺ treatment. The patient survey utilized a numerical scale of (1-10) which compared improvements in four distinct physical and mental health symptoms indicative of POTS, CFS, and HMP toxicity (**1. Physical strength, 2. Pain scale, 3. Energy levels, 4. Mental acuity**). Patients received a 3-5 hr course of BR⁺/NAD⁺ (50mg/ml) IV infusions along with oral Ca²⁺/MG²⁺/K⁺ mineral support tablets and NAD⁺ plus cell regeneration capsules. During infusion time, patients’ heart rates and blood O2 % saturation levels were measured and recorded using pulse oximeters. Clinical staff at Physio Logic NYC performed a complete comparative analysis of NAD⁺ IV treatment by compiling information from patient medical records, health history, and patient data from self-reported surveys. **Results:** A scatter plot was generated portraying the results of each patients’ NAD⁺ IV treatment course. Data suggests that BR⁺/NAD⁺ infusions significantly decreased anxiety, obsessive compulsive disorders, and depressive episodes for both patients’ as noted by their reports of less frequent hand tremors and muscle spasms. Musculoskeletal strength drastically

increased in one patient who disposed of their wheelchair after their third NAD⁺ IV infusion appointment. Composite scores for all four parameters demonstrate positive improvement, with the greatest recovery seen in pain scale and mental acuity. **Discussion:** NAD⁺ IV supplementation leads to consistent alleviation of adverse physical and psychological symptoms indicative of damage to nerve conduction in patients who suffer from POTS, CFS, and HMP compared to baseline prior to NAD⁺ treatment. NAD⁺ production naturally decreases as we age. Lack of NAD⁺ production in hippocampal brain regions leads to almost every known hallmark of aging including a compromised immune system, impaired DNA repair, inflammation, broken neural networks, and senescence. Taken together, it is thought these malfunctions increase the prevalence of Alzheimer's, Parkinson's, Huntington's, and Amyotrophic Lateral Sclerosis (ALS) diagnoses in our senior adult population. Future investigations on NAD⁺ hippocampal tissue fractions may reveal direct connections between NAD⁺ production and neurodegenerative symptoms in aging adults.

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Key words: POTS, HEAVY METAL POISONING, CHRONIC FATIGUE SYNDROME