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“Stress Dysautonomia T2DM AND VASCULAR DISEASE”

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Stress has been identified as the insinuating factor for diabetes 2 and cardiovascular disease.

Behavioral and motivational responses of the brain are regulated by the Limbic system of

Which Hypothalamus is a key control center?

Hypothalamus has reciprocal negative feedback communication with Central vagal

Nucleus (CVN) via hypothalamic - Vagal (HP-V) axis.

Hypothalamus sends signals upwards to Thalamus and downwards to Reticular activating system and Central vagal nucleus (CVN). CVN is the central control station for the autonomic system.

Serotonin is the neurotransmitter for Hypothalamus / Acetylcholine for CVN. These are central brain structures and hence have regulatory function.

Body's interaction with environment and the consequent physiologic responses are influenced by our Emotions. Emotional or physiologic stress triggers hypothalamus which generates a central response at the HP-V. HP-V axis generates complex systemic body responses via autonomic nervous system. Autonomic nerves system is therefore the essential link between brainstem control centers and body organ systems. It regulates all the involuntary, hormonal and metabolic functions of the body.

Type 2 diabetes is therefore a consequence of dysautonomia and leptin resistance that precipitates receptor resistance.

Clinical complications particularly cardiovascular in T2DM are due to autonomic dysfunction causing – Vascular endothelial dysfunction, Hyper-coagulable state, peripheral a-v capillary dysfunction and cardiac autonomic imbalance. Vascular disease particularly in diabetes and women is due to vascular inflammation and micro vascular dysfunction due to dysautonomia.

Dysautonomia assessment and treatment is a comprehensive and cost effective approach to T2DM and Cardiovascular diseases management

Biography:

Dr. Adiraju is a cardiologist who developed [novel testing](#) and treatment modalities for [dysautonomia](#). He has established a [Dysautonomia and cardio-diabetes](#) research Institute in 2005 in Philadelphia, Pennsylvania, USA. He has extensive experience in treating dysautonomia disorders and has treated over 5000 patients with type II diabetes and other dysautonomia disorders via [autonomic neurohormonal regulation protocols](#). In his 29yrs of clinical career he has several publications and abstract presentations on dysautonomia.

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