Periaqueductal Gray-vagus Nerve Interface Malfunction Explain the Natural History With Its Numerous Co-morbidities?

Status: RECRUITING

Eligibility Criteria

Age: 12 years to 21 years old

This study is also accepting healthy

Healthy Volunteers: volunteers

Inclusion Criteria:

* Females 12-21 years old * Able to communicate and provide consent/assent * English speaking * Diagnosed with POTS (POTS will be defined standardly as a symptomatic ≥ 40 bpm rise in heart rate without a drop in blood pressure and with symptoms of orthostatic intolerance clinically) * Age-matched healthy control subjects: no POTS or other neurological disorders

Exclusion Criteria:

* Inflammatory arthritis, connective tissue or auto-immune disorder * Any chronic neurological disorder besides POTS * Evidence of unstable medical disorder, such as kidney (rising creatinine, or end-stage renal failure) or liver impairment (rising AST or ALT, or end-stage with coagulopathy), poorly controlled significant cardiovascular (CHF), respiratory, endocrine (diabetes

•A1c \> 9

•or untreated thyroid dysfunction) or uncontrolled psychiatric illness (such as untreated depression, psychosis, etc.) * Neuropathy, central nervous system disorder (e.g., Cerebral palsy, developmental delay, seizure disorder, MS, stroke, etc.) * Treatment with a drug or medical device within the previous 30 days that has not received regulatory approval * Use of hormones (except insulin, thyroid replacement or oral contraceptives, which will be carefully documented) * Current substance or alcohol abuse * Any major surgical intervention with general anesthesia in the last 60 days and minor procedure, such as tooth extraction, endoscopy, etc., with local or conscious sedation within 7 days * Any on-going or pending medical, health or disability related litigation, or current pursuit of disability * Any condition that in the judgment of the investigator would interfere with the patient's ability to provide informed consent, comply with study instructions, place the patient at increased risk, or which would clearly confound the interpretation of the study results (specific reason will be documented) * Chronic use of narcotics for pain * Claustrophobia or any metal hardware that may interfere with MRI * Investigators and study staff

Conditions & Interventions

Interventions:

BEHAVIORAL: Looming task

Conditions:

Postural Tachycardia Syndrome

More Information

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Principal Investigator:

Phase: NA IRB Number:

System ID: NCT05618054

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