Symptoms of Lower Urinary Tract Dysfunction Research Network

Subtypes of Sensory Sensitivity In Overactive Bladder Syndrome

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Introduction & Method

- Many patients with Overactive Bladder Syndrome (OAB) report <u>hypersensitivity</u> to lights, sounds, odors, and have a broad range of sensory symptoms, including pain. Better characterization of sensory hypersensitivity feature is needed to *subtype* OAB patients.
- Use functional neuroimaging, auditory testing, and questionnaires to assess generalized sensory sensitivity (GSS) subtype of OAB.
- OAB (N=145) and Healthy Control (HC, N=97) from the LURN Study
- Functional Neuroimaging (fMRI) during resting state
- Auditory Testing (pure tones, 40dB to 90dB, unpleasantness ratings)
- Complex Multi-Symptom Inventory (CMSI) questionnaire consists of 4 items to assess generalized sensory sensitivity (GSS):
 - Sensitivity to chemicals, sound, odors, bright
- OAB with high vs. low sensory sensitivity (N=50, 95), vs. HC (N=97)

OAB with high GSS (General Sensory Sensitivity) have higher auditory hypersensitivity, supported by self-reported measures and sensory testing





OAB patients with high GSS have heightened Default Mode activity at Resting State

