NeuroHyperSensitivity: Understanding and Treating Common Autonomically-Mediated Illnesses

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Common Ailments

Population Prevalence:

Migraine – 12%

IBS – 14%

Primary Insomnia 10-15%

CFS/FMS – 3-6%

GAD – 3-6%

Possible:

Pelvic Pain (Vulvar Vestibulitis; Interstitial Cystitis; other unexplained pelvic pains)

Commonalities

- Mostly female (2:1 up to 10:1)

- High Co-morbidities (Migraine with IBS ~ 30%; FMS w/Migraine or IBS ~50%)
- Median Onset in late 20s, often concomitant with some (otherwise normal) life stressor
- CNS Activity:
  - ANS < PSNS (cold fingers; decreased HRV; quick stress response; hard to settle down)
  - Hypersensitivity to CNS medications (often needs to go low and slow)
  - Personality: Vigilant, conscientious, hard-working, rarely takes time to R&R, puts other's care before self-care; skips breakfast (while making it for others), eats lunch at desk; works till bedtime hen shallow sleep; tends toward perfectionism, external functional focus (rarely daydreams except about what needs doing)
    - Sometimes chronic condition leads to despair/hopelessness (ask about premorbid style)
  - Sensory Hypersensitivity: light, sound, smell, touch

Likely Strong Common Genetic Component

- Inheritance – almost always has a parent/siblings with one or more of these d/o)
- FMS functional Imaging shows parietal lobe activation > normal when stimulated
- IBS has increased 5HT3/4 in gut
- Migraineurs (non acute) have Peripheral Physiological Assessment – ANS>PSNS
- Migraineurs (non acute) have EEG Spectral Analysis – Primarily Beta
- Migraineurs have altered alleles on specific genes vs non-migraineurs
- Possible hereditary benefits: first 90% of homosapian era could be adaptive, neurohypersensivitity could be associated with better attention to danger, tracking children running around, etc. Problems arise with modern overwhelming of senses (lights, crowds, seasonings, perfumes, etc)

Similar Treatments Help

Prevention:

- improved lifestyle can curb these ailments better than any preventive medication
- Regular:
  - sleep schedules
  - Eating schedules
  - Exercise schedules
  - R&R schedules to improve control over ANS
- There is no “cure” for these conditions, only ongoing self control of nervous system activation and and physician management to manage acute Sx

Case Example

- 28 y/o SWF with FMS as primary concern
- Living with parents, has not worked since graduating HS when symptoms onset
- Applied for SSDI, but was denied
- Upon interview, she revealed comorbid insomnia and generalized fatigue, /migraine, IBS-alternating type
  - Family Hx (mother with migraine, IBS)
- Interview revealed GAD with obsessive qualities, pain with intercourse, and poor reactions to Rx
- ”Can not exercise because it makes me worse”
- obsessive focus on pain and “disability” with corresponding belief she is disabled

Case Example - Intervention

- 1) rapport on Dx and Sx; encouragement that with lots of support, and work, she can improve
- 2) Motivational attitude shift
  - From Disability Mentality (focus on what I CAN'T do; I am a disabled person) to Active Coping Mentality (What I CAN do);
  - Education that fibromyalgia is a disorder of sleep and hyper sensitivity to pain, and that it can be overcome with hard work; exercise one hour a day (20 minutes stretching, 20 minutes toning, 20 minutes aerobic – to the extent that one can manage the next day); sleep hygiene and medication as necessary; attentional retraining, focusing away from internal hyper-focus and reactivity and into external activity/engagement)
  - Encouragement that a healthy lifestyle and healthy coping attitude can also help her other conditions
- 3) Specific schedule and lifestyle plan (exercise, diet, sleep hygiene)
- 4) Specific instruction in active coping (What CAN I do; attention on engagement vs Sx)
- 5) Specific instruction and practice in self-soothing, non-reactivity, and attentional focus on engagement
- 6) Discussion and strategies for managing obsessive anxieties (think if you can act to improve situation, otherwise refocus on what you are engaged in doing in the moment, or the calm breath if in bed, car, walking)

Treatment Outcome

Tx proceeded for 50 minutes/session, weekly over 12 weeks, 1x/mo maintenance sessions

Homework was given and reviewed each session

Patient was highly motivated

- (imagine how you will be in 1 or 5 years if you continue like this vs imagine how you'd be if you engaged in the active strategies we've discussed)

After mostly steady improvements, after 12 weeks she:

- able to exercise 1 hour/day
- practices meditation for 2, 20 minutes daily
- feels her pain is greatly subsided, or at least no longer feels disabling
- has had far fewer migraine or IBS attacks
- is sleeping through the night for the most part and is far less fatigued during the day
- is far less anxious and is for the first time hopeful about her future
- go to the beach to swim (first time in many years)
- met a boyfriend (across the street) with whom she sees regularly
- has begun making jewelry and knickknacks to sell at markets and fairs

Treatment

- Not all patients will respond this quickly
- - she is relatively young, no childhood trauma, and has a basic optimism to improve
- Risk factors:
  - early traumas
  - learned helplessness from upbringing
  - cultures that emphasize self as one's job function, so that even temporary dysfunction can become chronically disabling
  - Doctors who foster a dependency upon diagnostic categories and passive treatments (and numbing Rx)
- Protective Factors:
  - supportive family
  - Prior success at sports or other committed activity
  - Doctors who support self-control over the disorders rather than reliance upon doctors and medicines

Discussion

NeuroHyperSensitivity

Case

Other