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Tip for That #4: Integrative Medicine Competencies: Health Conditions (Adrenal Fatigue)

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Tip for That #4:

Integrative Medicine Competency: Health Conditions (Adrenal Fatigue)

March 16, 2016

Recently, several providers have inquired about adrenal fatigue. What is it? Is it real? How is it treated?

Adrenal fatigue (AF) is a common stress-related disorder which results from chronic over-activation of the hypothalamic-pituitary-adrenal (HPA) axis leading to dysregulation of circulating cortisol and other hormones. It is caused by an intense single stress or chronic repeated stress leading to depletion in the output of adrenal hormones. Though classical endocrinology does not recognize AF, the World Health Organization (WHO) recognizes AF or 21st Century Syndrome as a real entity.

AF is not Addison's or Cushing's, but falls somewhere between these two extremes, making it difficult to diagnose with laboratory testing. AF is often a clinical (rather than laboratory) diagnosis.

Symptoms of AF:

- Fatigue with relatively normal laboratory studies
- Insomnia or hypersomnia and unrefreshing sleep
- The need to use salty/sugary foods and caffeine to function
- Suppressed immune system (susceptibility to illness, difficulty recovering from illness, slow exercise recovery and chronic sinus issues)
- Poor focus and concentration ("brain fog"); light-headedness (from low blood pressure; if you see patients with BPs in the 90s/50s, think AF!)
- Depression, weight gain/loss and low sex drive

3 stages of AF:

- Stage 1: acute stress/alarm reaction – high cortisol and high or normal DHEA
- Stage 2: adaptation* – normal or high cortisol and low DHEA
- Stage 3: depletion/exhaustion** – low cortisol and low DHEA

Stage one tends to be an enjoyable stress – having a new baby

*I find that most of my patients fall in Stage 2, the "tired and wired"

**Those in Stage 3 can barely function and tend to nap a lot

Testing for AF:

- Rule out other conditions (CBC with diff, ferritin, thyroid studies, BMP, sleep study and ACTH stim/11-pm salivary cortisol if indicated)
- One day, 4-point salivary testing for DHEA and Cortisol (specialty labs, generally out-of-pocket)
- Serum DHEA-Sulfate (typically covered) – the optimal range is 300-400 for women; 400-500 for men

Treatment of AF – challenging and multi-faceted (which is why you won't see RCTs on this – it requires more than one intervention); recovery takes months to years for many:

1. Diet and Lifestyle Modifications
 - a. Hypoglycemia causes the release of cortisol. Skipping meals or eating foods rich in simple carbohydrates with a resultant spike in insulin then leads to a hypoglycemic state, inducing stress and release of cortisol. Low glycemic load eating, focused on quality proteins, unrefined carbohydrates/grains, vegetables, low-glycemic fruits and good fats, is essential in supporting healing.
 - b. Avoid alcohol and drugs, including caffeine, which exaggerates the stress response and heightens cortisol production.
 - c. Exercise daily, but not to exhaustion; one should not feel more tired immediately after or the day after exercise. Gentle stress-reducing activities such as yoga, Qigong and walking have been shown to reduce cortisol levels. Relaxation programs have been shown to help.
 - d. Minimize or avoid emotional stressors if possible.
 - e. Sleep more and better.
2. Nutraceutical and Rx management – consider referral to an integrative medicine physician until you feel comfortable advising patients on vitamins, supplements and botanicals (herbs).
 - a. Adaptogens - natural herbs that have non-specific, normalizing effects on physiology; they influence normal body functions only enough to encourage resistance to stressors. (i.e. *Eleutherococcus senticosus*, *Panax Ginseng*, Ashwaganda, Maca, *Rhodiola* etc.)
 - b. HPA-axis inhibitors (fish oil, phosphatidylserine)
 - c. Vitamins (Vit C, Vit E, B-vitamins, magnesium, zinc, Vit A and mixed carotenoids)
 - d. Hormones – DHEA or low dose hydrocortisone may be used with caution in severe cases

Resources:

1. Articles
 - Wilson JL. [Clinical perspective on stress, cortisol and adrenal fatigue](#). *Advances in Integrative Medicine*. 2014; 1:93–96. doi: 10.1016/j.aimed.2014.05.002-2212-9626.
 - Anderson DC. [Assessment and nutraceutical management of stress-induced adrenal dysfunction](#). *Integrative Medicine*. 2008 Oct Nov;7(5):18-25.
2. Academy of Integrative Health and Medicine (AIHM) **Annual Conference** in San Diego – a great way to get your feet wet in the field of integrative medicine! <https://www.aihm.org/aihm-conference/>

*“Many cases of adrenal fatigue . . . are triggered by motor vehicle accidents; severe injuries . . . deep emotional trauma such as divorce, **extended periods of overwork without sufficient time for relaxation; poor and irregular eating habits; and chronic lack of sleep** . . .there are certain **groups that tend to suffer from adrenal fatigue more frequently because of the constant stress they are under**. Examples are **caregivers, social workers, police, doctors, nurses, single moms, people working two jobs, lawyers, and the self-employed.**” (sound like anyone you know?)*

Excerpt from: Wilson JL, *Clinical perspective on stress, cortisol and adrenal fatigue*. *Advances in Integrative Medicine* 1 (2014) 93–96.

For Aurora Family Medicine residents, IMR link:

http://integrativemedicine.arizona.edu/program/alum2015/integrative_endocrinology/adrenal/5.html

I hope you enjoyed this installment of Tip for That. I welcome your feedback.

In Health,

Kristen

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