

The NeuroTransmission

Helping practitioners assess, monitor, and correct neurotransmitter and adrenal hormone imbalances.

Volume 2, Issue 7 · July, 2008

Sanesco International • 866.670.5705

Online presentation available at www.Sanesco.net



Women's Dancing Hormones

Sharon Norling, MD, MBA

“While imbalances in sex hormones create many symptoms in the peri-menopausal and menopausal woman, these symptoms can also stem from adrenal, neurotransmitter, and thyroid imbalances.”

Editorial

Editor-in-Chief:

R.W. Watkins, MD, MPH,
FAAFP

Medical Editor:

Denise Mark, MD

Medical Editor:

Koren Barrett, ND

Contributing Editor:

Christina Callahan

Volume 2, Issue 7
The NeuroTransmission
is published by
Sanesco International.

© Copyright 2011
All Rights Reserved
Sanesco International
1010 Merrimon Ave.
Asheville, NC 28804

866.670.5705

www.Sanesco.net

Featured Author



Sharon Norling, MD, MBA

Hormones. Most women think of “hormones” as estrogen, progesterone and sometimes testosterone. Throughout a woman’s lifetime they experience the fluctuating hormones and attribute mood swings, hot flashes, cravings, anxiety, depression, fatigue, joint pain, weight gain, low libido, mental confusion or memory loss and insomnia to the imbalance of female hormones. Frequently, this is only one piece of the puzzle. Our bodies are complex. How we feel and respond involve the interaction and integration of the endocrine, immune, enteric and nervous systems. Neurotransmitters carry messages to every organ, muscle and gland. Poor nutrition, drugs, heavy metal toxicity and over stimulation deplete and imbalance the neurotransmitters which impairs the function of all systems. **Thus, the balancing of these systems is a delicate dance, and one that requires a great deal of experience and information.**

The Women’s Health Initiative (WHI), set out to definitely answer questions about the risks and benefits of hormone replacement therapy (HRT), but only added to the confusion and concern. First, it studied only synthetic hormones (Premarin and PremPro), given orally in a fixed dose. Secondly, the study chose older participants; the mean age was 63.2, allowing females up to 79 years of age. This age group generally has greater health risks and is not using HRT. Also included were women who were overweight, had hyperlipidemia, subclinical atherosclerosis, and 49.9% were smokers.

Featured Author



Dr. Norling established The Mind Body Spirit Center in Westlake Village, CA to practice Integrative Medicine and Functional Medicine. She is the only physician in the United States known to be nationally board-certified in OB/GYN, Integrative/Holistic Medicine, and Medical Acupuncture. Dr. Norling served on the faculty of the University of Minnesota Medical School for 12 years and had the opportunity to testify before the White House Commission on Complementary Alternative Medicine.

Online Resources

Go to...

www.Sanescos.net

Click on

“Education and Resources”

and then “Resource Library” to see the complete array of self tutorial material available.

Enroll in Sanesco’s exclusive “CSM” Certification Program to realize the full potential in assessing, monitoring, and correcting neurotransmitter imbalances!

Interestingly enough, the study actually excluded women with hot flashes, a major symptom of menopause.¹ Based on misconceptions and misinformation, sensational reports of WHI findings indicted HRT for causing breast cancer and heart disease.

A secondary review of the WHI’s findings separated the estrogen and estrogen-progestin arm into the 50-59 year olds, the age when women generally use hormonal replacement therapy. In the estrogen-progestin arm the CHD hazard risk ratio was found to be 0.76. A risk ratio of less than 1 is indicative of less risk of disease. In the estrogen only arm there was 23 % less invasive breast cancer than in the placebo group.² Another study found that administration of trans-dermal estrogen diminishes the largest adverse hormone-event: thromboembolism.³ Based on the results of these studies, further research is needed to identify the risks and benefits of HRT and bio-identical hormone use in appropriate age groups.

In addition to the questions regarding the risks and benefits of female hormones, women present with multiple symptoms which may or may not be due to these hormones. Often, when a woman experiences premenstrual syndrome (PMS), peri-menopause or menopause, conventionally they are prescribed female hormones. When this is not effective or symptoms remain, the hormones are changed or the dose is increased. Looking at only one hormone system, however, is not adequate. Successful treatment of women requires proper diagnosis and treatment of adrenal function. When adrenals are stressed, estradiol and testosterone can be shunted to DHEA while progesterone goes to cortisol. In women, the adrenal glands are the only source of DHEA. In the menopausal female, the adrenals are the only source of testosterone and the ovaries produce estrogen and progesterone at a much lower rate. If the adrenals are exhausted and cortisol is low, menopausal and PMS symptoms intensify. Therefore, adrenal normalization should precede hormone modulation. Neurotransmitter evaluation and support is also important. The inhibitory neurotransmitters, serotonin and GABA help to maintain calm and mood in the body, while the excitatory system, the dopamine, norepinephrine (NE), epinephrine (EPI) and glutamate, influence energy, focus, and memory. ***While imbalances in sex hormones create many symptoms in the peri-menopausal and menopausal woman, these symptoms can also stem from adrenal, neurotransmitter, and thyroid imbalances.***

The dancing hormones and their interactions are responding not only to each other but are modulated by our lifestyles and significantly impacted by stress. The complicated balance of our hormones and our brain chemistry challenges our stress adaptation mechanisms, and fatigue can result. These fluctuating levels in hormones such as estrogen, progesterone, testosterone, cortisol and thyroid, interact with brain neurotransmitters that affect our emotional and physical responses to life, stressors in our environment, insults, and even infections.

Neurotransmitters affect hormones. Serotonin increases thyroid function while GABA inhibits it. NE excess can increase or decrease cortisol depending

on whether it is acute or chronic NE excess. EPI excess can increase insulin and contribute to insulin resistance.

Hormones affect neurotransmitters. Estrogen is a serotonin agonist and a dopamine modulator. Progesterone is a GABA agonist. Testosterone supports both serotonin and dopamine. Low cortisol can increase NE and glutamate and lower serotonin and EPI. High cortisol blocks serotonin. DHEA is a serotonin, dopamine and NE agonist, and as a GABA antagonist it is neuroprotective. Thyroid hormone supports serotonin and decreases dopamine. Insulin resistance decreases serotonin and increases NE and dopamine.

In conclusion, replacement of deficient female hormones alone without addressing the overall health of the adrenal function, neurotransmitters, and thyroid function, is a band-aid approach and often ineffective in the long run. The communication system is complex, so appropriate testing and monitoring must always be done to determine the current state of balance, the ongoing need for specifically designed supplements, and appropriate dosing.

Typical Symptoms Associated with Hormonal Changes and the Imbalances that can Cause Them:

- **Mood swings:** Low serotonin, low thyroid, low GABA, high dopamine, low adrenals
- **Insomnia:** Low adrenals, low serotonin, low GABA, high NE, high EPI, low blood sugar, high cortisol
- **Hot flashes:** High cortisol, low serotonin
- **Fatigue:** Low thyroid, low glutamate, low adrenals, low dopamine, low NE, low E
- **Anxiety:** Low serotonin, low GABA, high NE, high EPI, high glutamate, high cortisol,
- **Depression:** Low serotonin, low thyroid, low Vitamin D, low NE, high glutamate
- **Pain:** Low serotonin, low vitamin D, low cortisol, high NE
- **Lack of motivation:** Low serotonin, low dopamine
- **Carbohydrate cravings:** Low serotonin, insulin resistance, low dopamine
- **Weight gain:** Low thyroid, high Cortisol, insulin resistance
- **Memory loss and lack of focus:** Low thyroid, low cortisol, low dopamine, low EPI, low NE, low glutamate

References

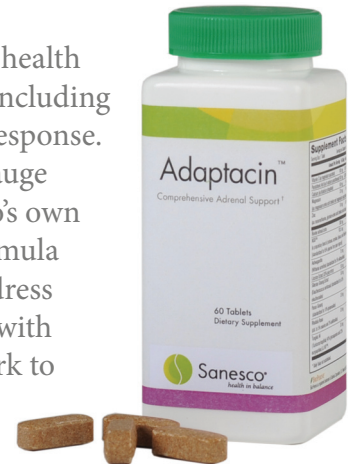
1. Postmenopausal Hormone Therapy and Risk of Cardiovascular Disease by Age and Years Since Menopause. Rossouw et al. JAMA. 2007;297:1465-77.
2. Health Risks and Benefits Three Years After Stopping Randomized Treatment with Estrogen and Progestin. Heiss, G et al. JAMA. 2008;299(9):1036-1045.
3. Prothrombotic Mutations, Hormone Therapy, and Venous Thromboembolism Among Postmenopausal Women. Impact of the Route of Estrogen Administration. Straczek et al. Circulation.2005;112:3384-3390.

Targeted Nutritional Therapy (TNT) formulas represent the therapeutic aspect of the clinical model discussed by Dr. Norling. Sanesco's TNT formulas are designed to act on the inhibitory or excitatory aspect of the HPA axis—a system critical to all metabolic function—or as adjunctive support. Used as either a stand-alone therapy or as an adjunct to other treatment protocols, TNT formulas are effective in accelerating the healing process and minimizing the chance of symptom recurrence.

Go online to www.Sanesco.net to see the entire line of TNT products.

Adrenal Support from Adaptacin

In her article, Dr. Norling discusses the importance of adrenal function in the health and well-being of patients. The adrenal glands influence many body systems, including sex hormones, and play a role in energy, immunity, and, of course, the stress response. NeuroLab's HPA test can determine your patient's adrenal output, as well as gauge its influence on the major neurotransmitters in the body. Adaptacin is Sanesco's own adrenal support formula. A combination of adaptogens and cofactors, this formula is designed to give support to and rebalance the adrenal glands, helping to address symptoms of fatigue, allergies, and hypoglycemia. When used in conjunction with Sanesco's other inhibitory and excitatory support formulas, Adaptacin can work to benefit the entire HPA axis, alleviating concerns and returning the patient to a more optimal state of health.



Inhibitory Support from Tranquilent

Tranquilent is one of Sanesco's inhibitory support formula, specially designed for acute anxiety and hyperactivity. Meant to be used as an adjunct support, it contains low doses of 5HTP, L-theanine, and Myo-Inositol to help counter the effects of low serotonin and GABA, as well as high cortisol, norepinephrine, and glutamate levels. As a chewable, raspberry flavored tablet, Tranquilent works quickly to calm during moments of high stress. Perfect for adults feeling the effects of fluctuating neurotransmitters and hormones, and safe and effective for use in pediatric patients, it can be a great product to add into any Sanesco protocol.



About Sanesco International

Sanesco International is a medical company leading the way in assessing, monitoring, and correcting neurotransmitter and adrenal hormone imbalances affecting HPA-T axis function. Since inception in 2004, the Sanesco team remains committed to providing an effective clinical model with practical solutions to help practitioners address their patients' chronic symptoms, acute conditions, and to practice preventive medicine. *Contact one of our Practice Building Specialists today to learn how you can find more success with addressing your patients chronic symptoms and conditions.*

1010 Merrimon Ave. • Asheville, NC 28804 • 866.670.5705 • www.Sanesco.net