

# Case #1031: A Case Study Evaluating the Effects of Targeted Phytonutrients to Support Healthy Adrenal Function in a Patient with Fatigue and Compromised Functioning

Dan Lukaczer, ND

Functional Medicine Research Center<sup>SM</sup>, Gig Harbor, WA 98332

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## PURPOSE

The purpose of this study was to assess the effectiveness of targeted phytonutrients to support healthy adrenal function in a patient with chronic symptoms of fatigue, sleep disruption, and compromised functioning.

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## PATIENT'S PRESENTATION AND HISTORY

A 48-year-old female presented with chronic symptoms of fatigue and sleep disruption. She also complained of anxiety and felt mildly depressed. The patient reported a history of depression that began after the birth of her second child at age 27, and she had spent approximately 10 years on an antidepressant (sertraline). She said the therapy had been helpful, but it left her feeling like she was "in a fog" and "numb." She also noted a decrease in libido and, in general, she didn't feel fully functional.

Two years prior to presentation, she discontinued the sertraline and was placed on nefazodone, which improved the mental fog, but the low energy and decreased libido had remained. Other complaints included dry skin and cold hands and feet, which had increased over the previous two years.

At the time of presentation, the patient was perimenopausal. Her history included low thyroid function and acne rosacea, for which she was on medication. Her family history was significant for depression.

### *Patient's Objective Information*

- Ht: 61.5"; Wt: 132.5 lb; BP: 110/70
- Physical exam unremarkable; slightly dry skin
- Prescriptive medications and supplements: nefazodone, 200 mg bid; levothyroxine 0.1 mg qd; metronidazole cream once per day
- Laboratory results indicated low salivary morning and midnight cortisol; low-normal vitamin B<sub>12</sub>; low RBC count and hematocrit

## PLAN AND RESULTS

The patient was instructed to begin the following supplements:

- Adaptogenic adrenal support supplement (providing *Cordyceps sinensis*, *Panax ginseng*, and *Rhodiola rosea* extracts), 1 capsule bid
- Licorice root extract combination formula for adrenal support (providing *Glycyrrhiza glabra*, *Withania somnifera*, *Rehmannia glutinosa*, and *Dioscorea oppositifolia* extracts), 3 tablets qd
- Vitamin B<sub>12</sub>, folate, and intrinsic factor, 1 tablet bid
- Betaine HCl, pepsin, and gentian root for aid in digestion, 1-2 tablets with protein-containing meals
- At 3 weeks, the patient was instructed to begin a muscle relaxation support supplement, 2-3 tablets at night

### *2 Months after Starting Phytonutrient Support for Healthy Adrenal Function*

After 2 months, the patient reported that she had discontinued the antidepressant on her own and for the first time in 13 years she had been completely off antidepressant medication. The patient said she felt great, had much more energy, and was sleeping better. She rated her overall improvement at about 40%. Laboratory results indicated normalization of salivary cortisol and Vitamin B<sub>12</sub>. The patient was instructed to continue on the same protocol. She was also counseled on limiting refined sugars, since some of her complaints of fatigue and mood swings appeared to be related to reactive hypoglycemia.

### *3 and 5 Months after Starting Phytonutrient Support for Healthy Adrenal Function*

After 3 months, the patient reported waking up more refreshed in the morning and having more energy in the afternoon. She rated her overall improvement at 90%.

At 5 months, the patient continued to maintain improvement. Laboratory results indicated a normalized cortisol curve. She was advised to discontinue the phytonutrient supplements for adrenal support, continue the vitamin B<sub>12</sub>/folate supplement, and start on 500 mg pantothenic acid and 100 mg vitamin B<sub>6</sub> (with vitamin C, bioflavonoids, and magnesium) bid for support of adrenal hormone production.

#### 6 Month Follow-Up Appointment

The patient commented on how her life had dramatically changed. She had excellent energy, was sleeping well, and her diet was under control.

#### SUMMARY

This case suggests that targeted phytonutrients to support healthy adrenal function may help balance cortisol production, enhance energy, and promote well-being in patients with low cortisol levels and related symptoms.

#### NOTE

The information provided in this case study describes the results of one patient under the care of a licensed healthcare practitioner and may not be a typical response. Patients taking prescription medication for depression or similar conditions should be advised to only make small changes to their medication regimen with the advice of their healthcare practitioner.

Case Study: *A Case Study Evaluating the Effects of Targeted Phytonutrients to Support Healthy Adrenal Function in a Patient with Fatigue and Compromised Functioning*. Metagenics, Inc; O40ADR404.

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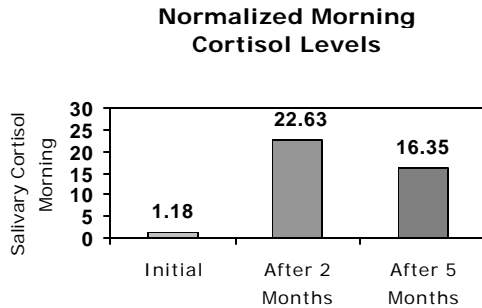


Figure 1. After 5 months on phytonutrient support for healthy adrenal function, the patient's morning salivary cortisol levels increased from 1.18 to within normal range at 16.35 (reference range: 5-23 nmol/L). This result suggests a substantial improvement in the patient's morning cortisol levels when targeted phytonutrients for adrenal support were incorporated in the plan.

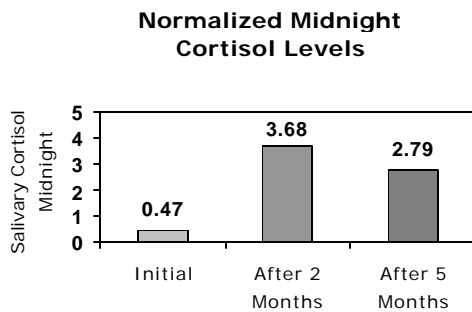


Figure 2. After 5 months, the patient's midnight salivary cortisol levels increased from 0.47 to within reference range at 2.79 (reference range: 0.75-4.70 nmol/L). The result suggests a considerable improvement in the patient's midnight cortisol levels with the inclusion of targeted phytonutrients for adrenal support.