

YOUNG PREMENOPAUSE WITH ESTROGEN DOMINANCE

CASE 1 PRESENTATION:

This is a 17 year old young woman with irregular cycles. BMI = 31.1 (classified as obese); she states weight gain started age 8. Fatigue with aches and pains are her general complaints. Family history: 21 year old sister has PCOS (Polycystic Ovarian Syndrome), mother has type II diabetes.

KEY SYMPTOMS:

- Acne – mild
- Depression – mild
- Cold body temperature – basal body temperature averaged - 97.0 F
- Difficulty concentrating
- Constipation
- Breast tenderness
- Mood swings
- Fatigue
- Aches and pains

HORMONE TEST	IN RANGE	OUT OF RANGE	UNITS	RANGE
E2 (Estradiol)	2.1		pg/ml	1.5-3.0
Pg (Progesterone)		20 L	pg/ml	100-600
Pg/E2 Ratio		9.5 L		50-200
Testosterone		63 H	pg/ml	20-50
DHEA-s		14.5 H	ng/ml	3-10
AM Cortisol		11.1	ng/ml	3-8
Noon Cortisol	2.1		ng/ml	2-4
Evening Cortisol		2.2 H	ng/ml	1-2
PM Cortisol	1.2		ng/ml	.5-1.5
TSH	1.75		uU/ml	0.5-3.0
Free T4	0.9		ng/ml	0.7-2.5
Free T3	3.3		pg/ml	2.5-6.5
TPO	10		IU/ml	10-49

ANALYSIS:

- Progesterone is low indicating no ovulation. PG/E2 ratio is very low revealing dominance of estrogen. [Although a diagnosis of PCOS has not been made, her elevated BMI, central obesity and acne are some cardinal

symptoms of PCOS.]

- Testosterone is elevated. High androgens are often correlated with insulin resistance – a precursor to PCOS.
- DHEAS is normally higher in teen years to mid twenties (10-15 ng/ml).
- Cortisol is high in the morning with a surge in the evening showing a dysregulation of circadian rhythm secondary to stressors and/or a high glycemic response.
- Thyroid hormones are in range and available to tissues but symptoms suggest functional hypothyroidism and/or thyroid hormone resistance. ²
- A CBC (complete blood count) was done to check for anemia; it was normal.

CLINICAL PEARLS:

Lack of nutrients, namely zinc, selenium, Vitamins B6, B12 and Vitamins A and C can contribute to low thyroid utilization due to resistance. ³

Correcting lifestyle habits can prevent a repeat of her family's history and balance dysglycemia.

TREATMENT CONSIDERATIONS:

- Nutrition consultation to reduce all simple carbohydrates, add high fiber foods to eliminate constipation (ground flax seed increases SHBG), and 6-8 servings of fruit and vegetables each day.
- Adequate fluids mainly water - 60-80 ounces a day.
- Daily exercise program – have this young woman engage in a sport she enjoys.
- Vitamin C – to support adrenal and thyroid function. ⁴
- Multi vitamin/mineral powder or capsule formula with each meal.
- Chromium 100-200 mcg helps increase insulin sensitivity. ⁵
- Education on stress reduction techniques:
 - 8-10 hours of sleep every night
 - Relaxation time everyday
 - Bio feedback techniques for feelings of frustration and anger.
- Check fasting insulin and triglycerides levels
- Monitor glucose levels at home (glucometer)
- Vitex agnus castus to stimulate pituitary production of LH for ovulatory stimulus
- Monitor menstrual cycles and repeat estradiol and progesterone levels in 3 -6 months