How Mira assists in clinical evaluation and treatment

Case Reports with Dr. Brett Baxter

NICHOLS
CHIROPRACTIC
FUNCTIONAL + MEDICINE

m mira

For Healthcare Professionals

Case report #1

PCOS while TTC

Patient background

34 Female
G0P0

Medical history: PCOS
TTC for 10 months

Tracking cycles with traditional period app

Complaints of difficulty losing weight, hair loss, acne, facial hair growth, and inability to get pregnant after 10 months of trying

Plan

Work up to determine the status of PCOS

Testosterone-free and total

Estrogen dominance

Insulin sensitivity
- Fasting trigs
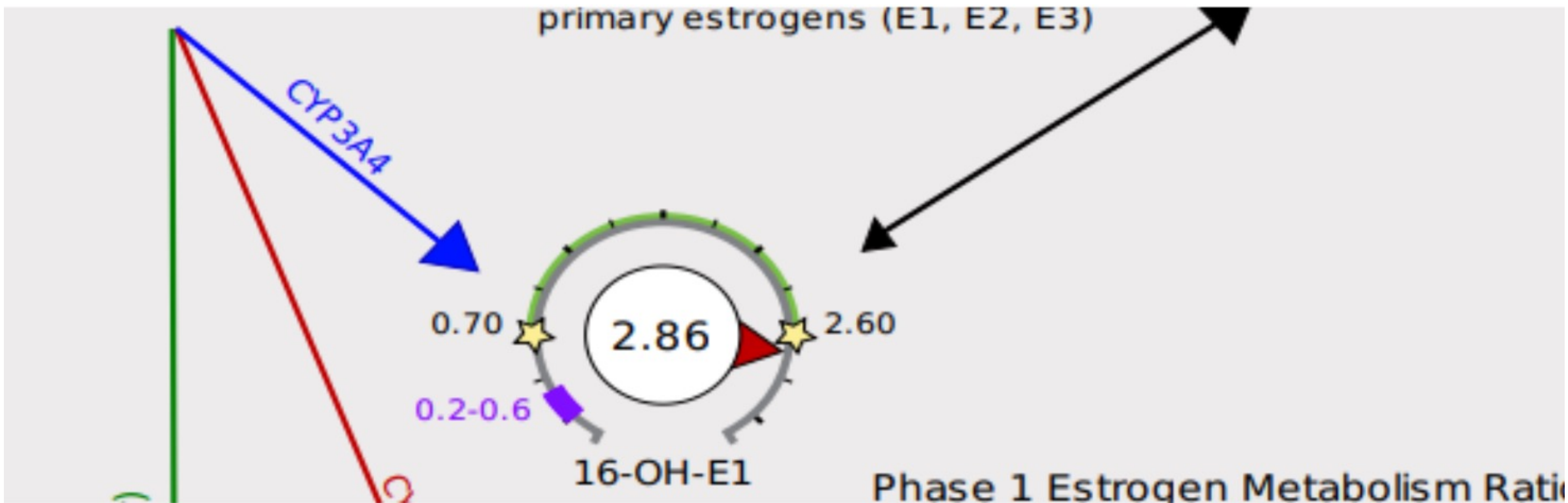- Fasting blood glucose
- Insulin
- HBA1C
- ALT

Methylation status
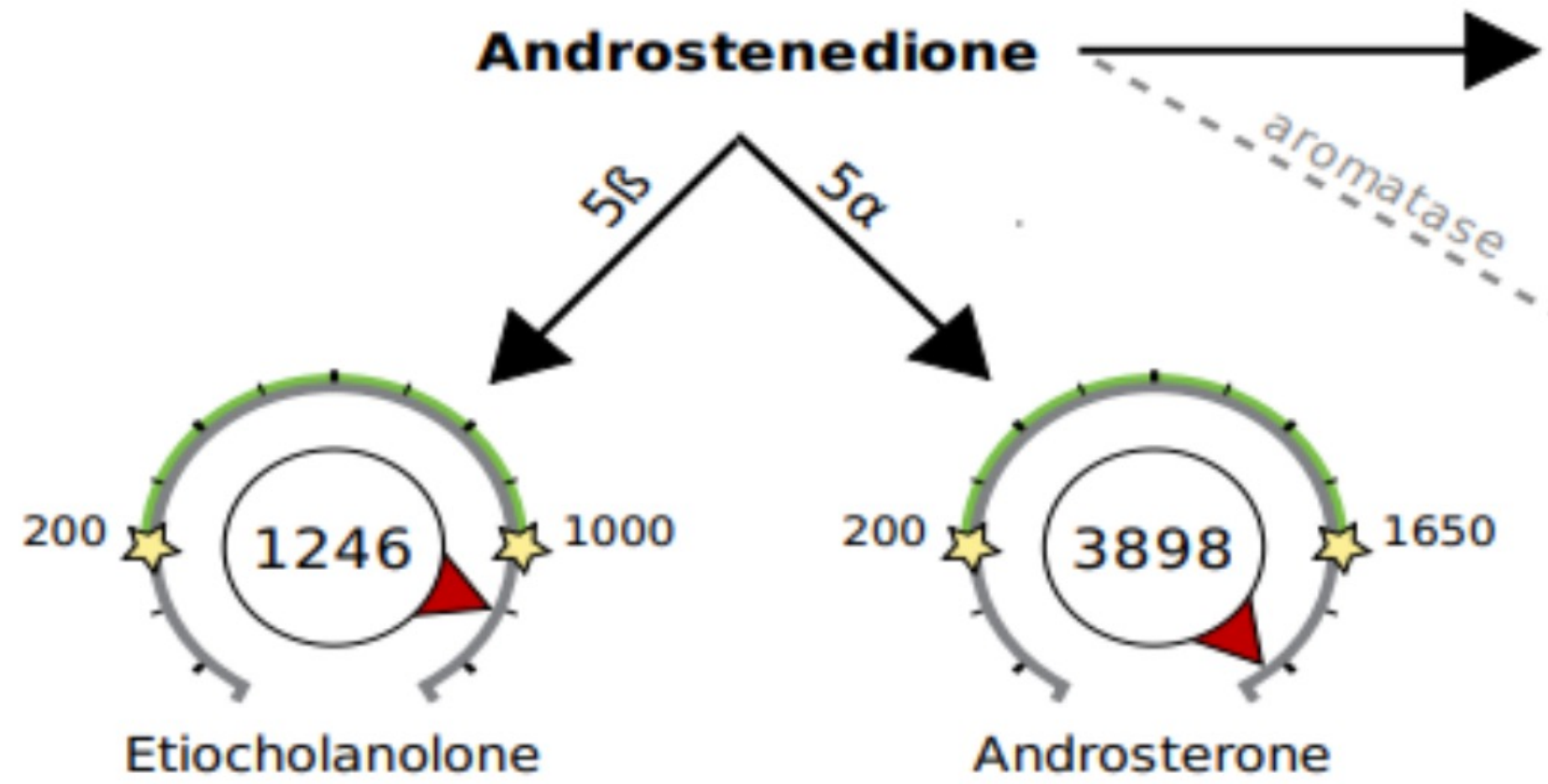- Vitamin B12
- Folate
- Homocysteine

Vitamin D

Dutch Results
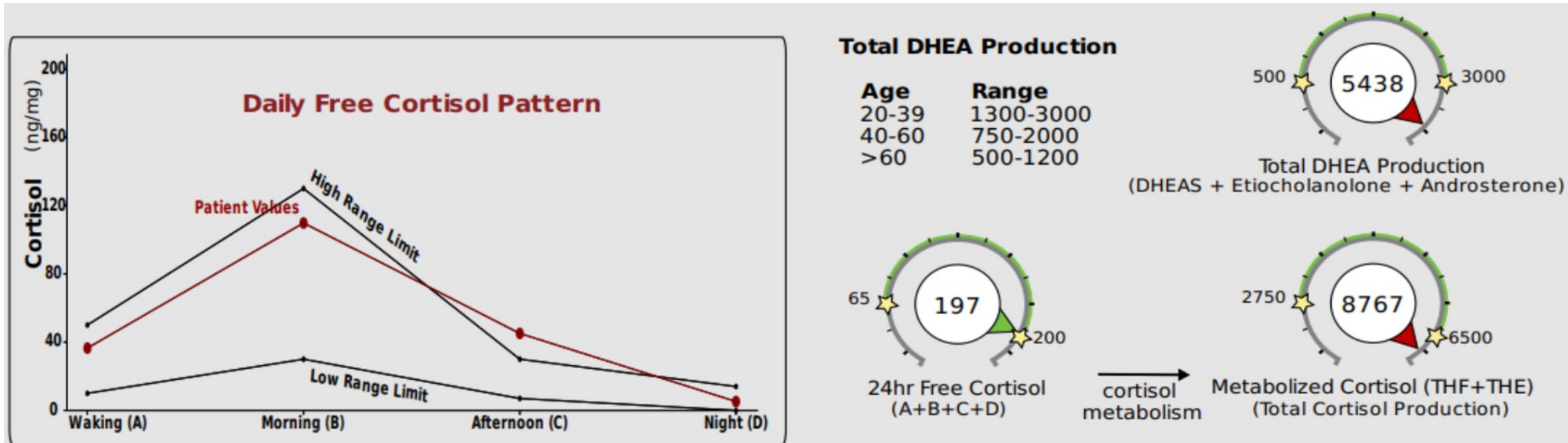
Dutch Results Continued
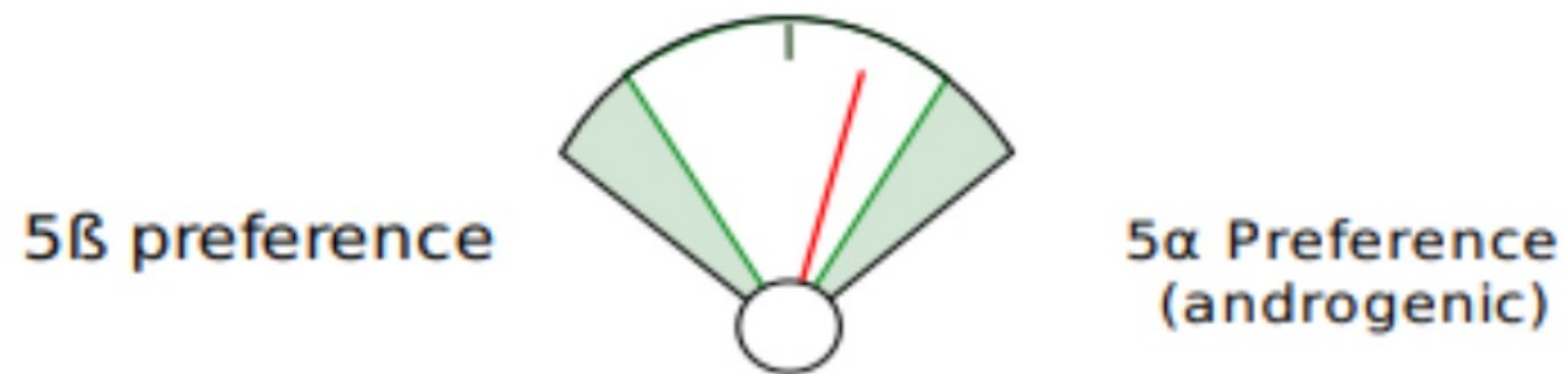
Lab Results

Comp. Metabolic Panel (14)				
Glucose	102	High	mg/dL	65-99
Vitamin D, 25-Hydroxy	19.3	Low	ng/mL	30.0-100.0
Vitamin D deficiency has been defined by the Institute of				
Insulin	41.9	High	uIU/mL	2.6-24.9

Testosterone,Free and Total				
Testosterone, Serum	41		ng/dL	8-48
Free Testosterone(Direct)	13.8	High	pg/mL	0.0-4.2

Results and Interventions

1. For high cortisol- implemented exercise and stress reduction techniques. Lowered inflammation.

2. For Estrogen dominance—topical progesterone, worked on insulin sensitivity and lowering inflammation, and gave herbs to help speed estrogen clearance through the liver.

3. Increase 5 alpha-reductase activity resulting in high androgenic metabolites—herbs to reduce this enzymatic function and reduce metabolites.

4. Blood labs - high insulin and fasting glucose. High free testosterone, low vit. D and omega 3's. Fixed these nutrient deficiencies, implemented daily walking practice and low-carb diet.

Monitoring Hormone Data with Mira

- Started tracking hormones with Mira in February 2023 to monitor hormone patterns and identify LH surge

- Mira was used as a guide to show improvements after interventions

- Allowed for precise tracking of the cycle to optimize changes in hormones and fertility.

Mira Data

Mira data discovered:

- Rising E3G leading to LH surge but abnormal E3G pattern in luteal phase

- LH surge on CD 15 and CD 16

- Rising PdG after LH surge confirms ovulation, however, abnormally low PdG levels

Follow Up Mira Data: Conception Cycle

Mira data discovered:

- Rising E3G leading to LH surge
- LH surge on Jan 3rd and 4th
- Elevated PdG after LH surge confirms ovulation
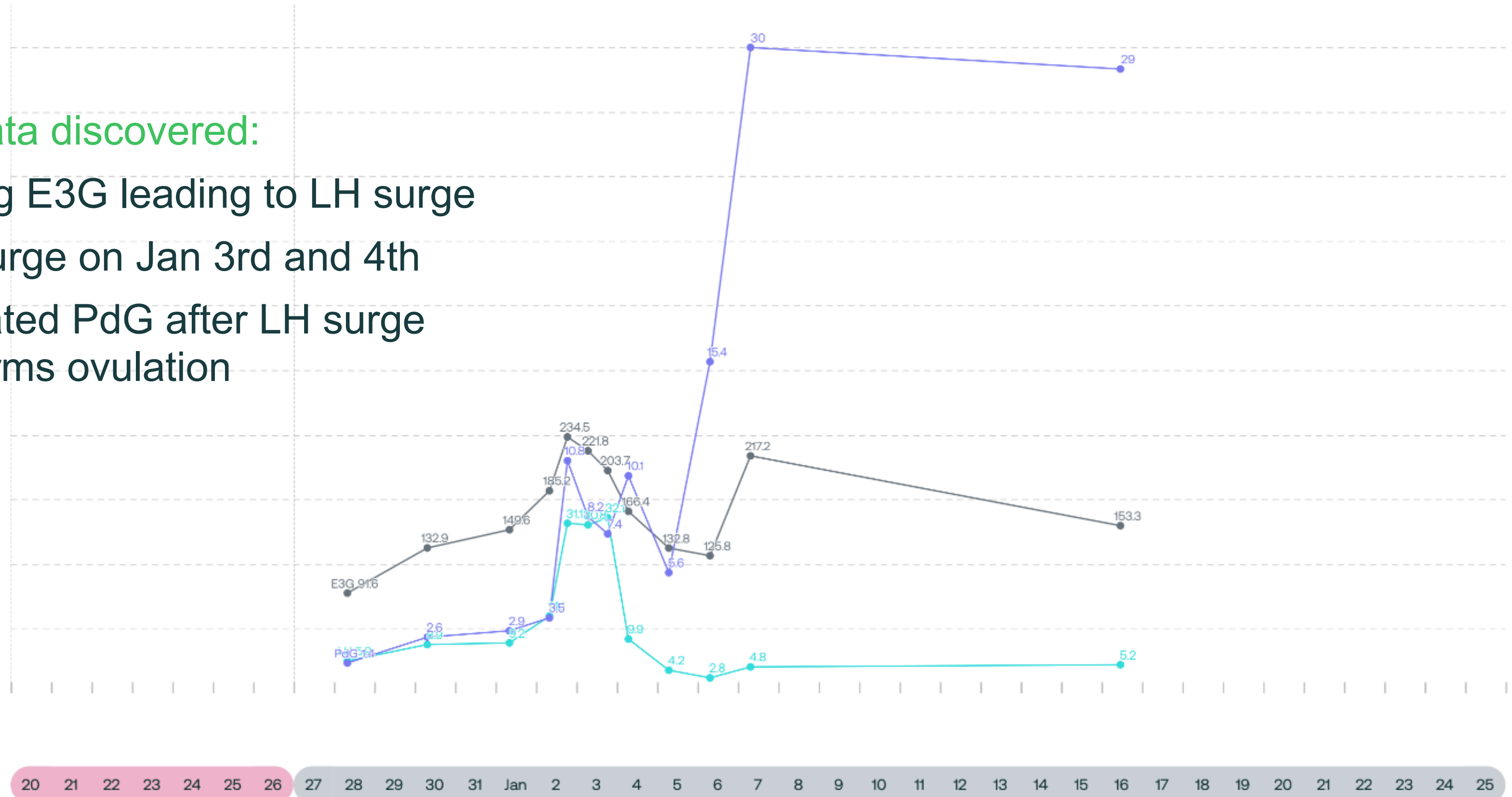
Summary

Provider identified unmanaged PCOS

Implemented targeted interventions
to manage PCOS

Incorporating Mira helped to monitor
hormone patterns and responses
to interventions

The patient reached her goal
of conception

Case report #2

PCOS Secondary Infertility

Patient background

The patient reports regular periods "my entire life"

Got pregnant (on the first month of trying) in July/August 2020 and had a c-section birth in April 2021

TTC again in June 2023, "my periods became very heavy and painful"

Started using LH strips to identify ovulation from June 2023 to October 2023. She was able to find positive LH test strips every month

From October to January, she started not finding positive LH test strips and had two periods back-to-back

Had an ultrasound and testing and was diagnosed with PCOS

Patient Situation and Plan

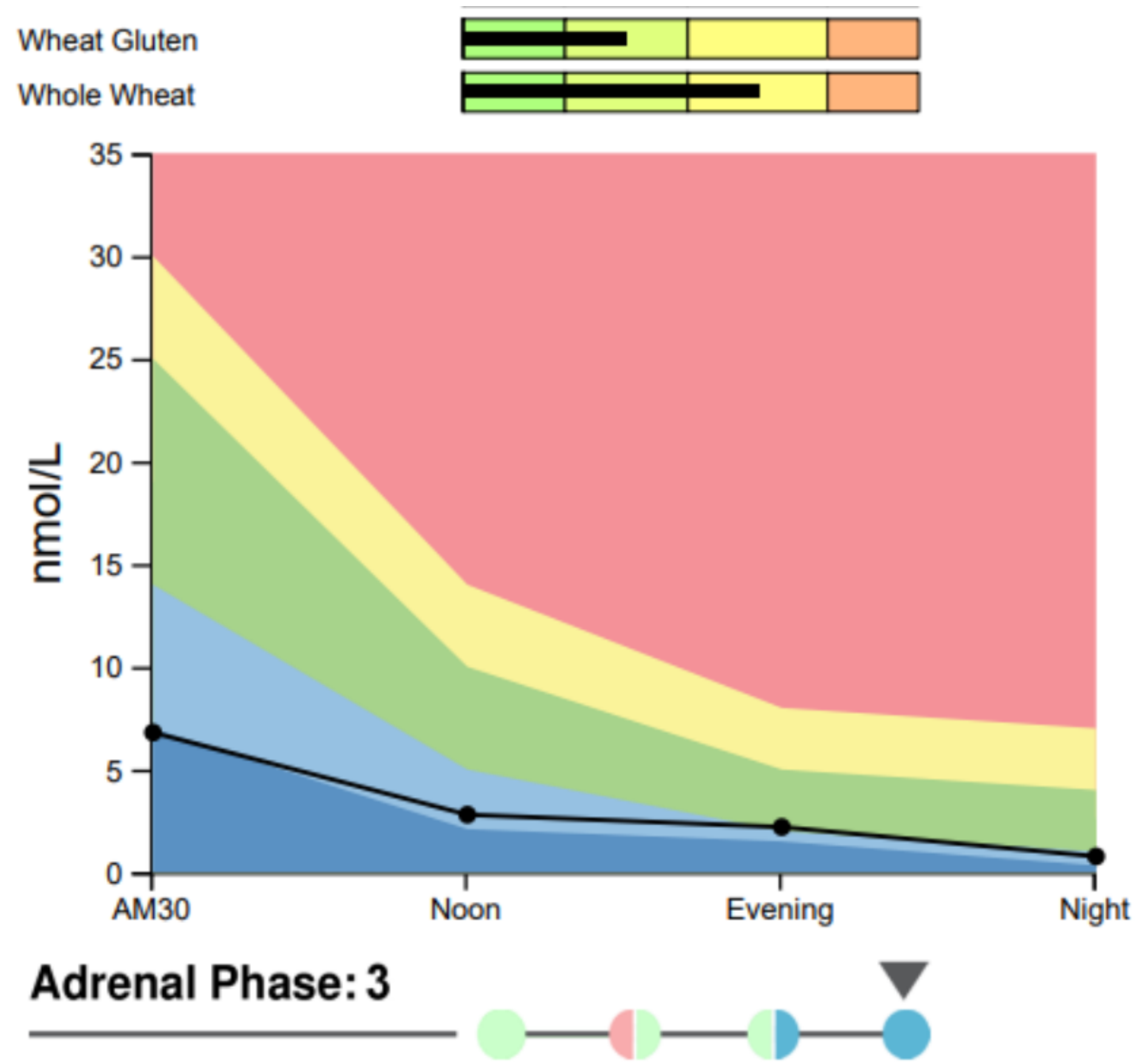The patient was referred to Dr. Baxter

Thorough work up for PCOS

Discussed cortisol and stress management, due to a very stressful job

She completed a GI workup, as she reported always being bloated.

Results

Interventions

Omega 3's

Vitamin D

Inositol for PCOS

Increasing exercise

Reducing carbs and sugar

Working on stress reduction and started adaptogens for cortisol issues
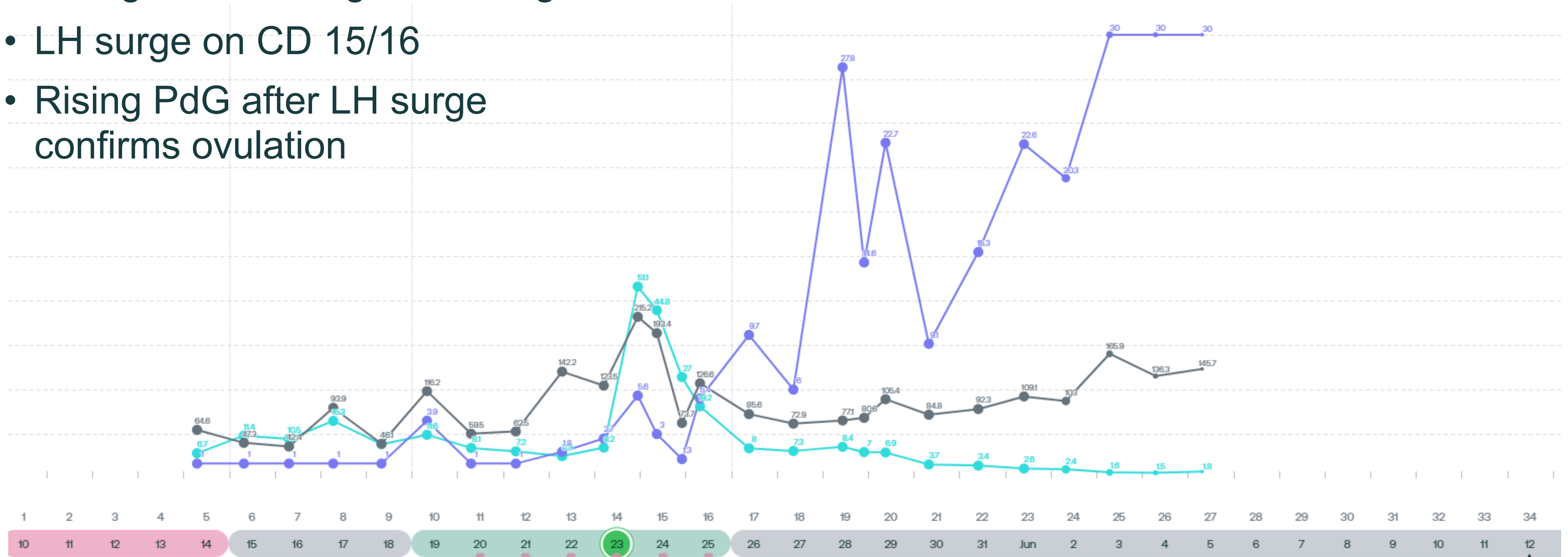
Removed gluten based on a high IgG blood test

Mira Chart: Conception Cycle

Mira data discovered:

- Rising E3G leading to LH surge
- LH surge on CD 15/16
- Rising PdG after LH surge confirms ovulation

Summary

She got pregnant on her first cycle of tracking with Mira after 8 weeks of consistently following the recommendations.

Case report #3

TTC for 7 months

Patient background

34 female

TTC for 7 months prior
to appointment

Discovered low progesterone
in serum lab work

Began cyclic progesterone—
timed based on Mira results

Removed dairy after a positive
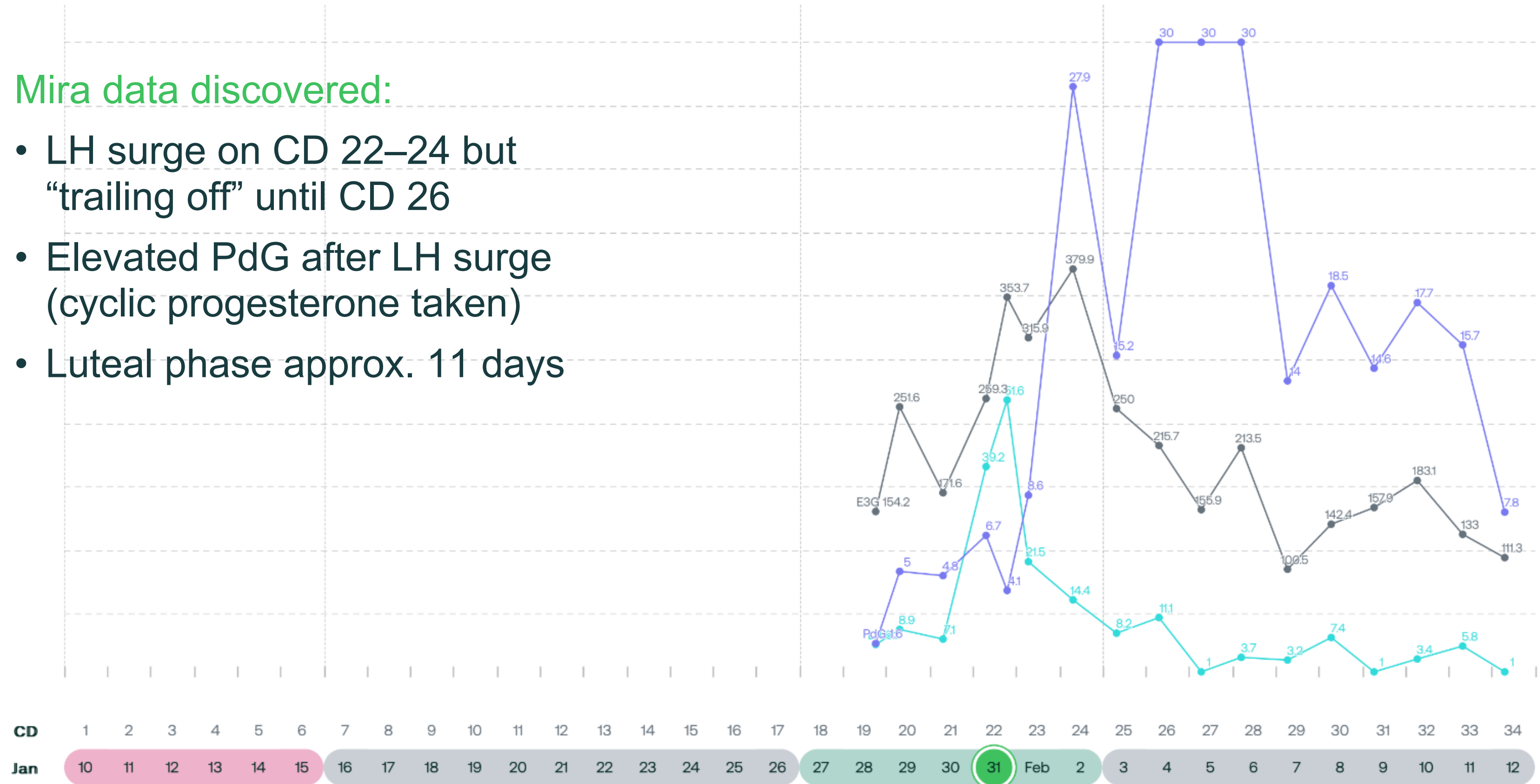IgG to dairy was identified

Supported micronutrients

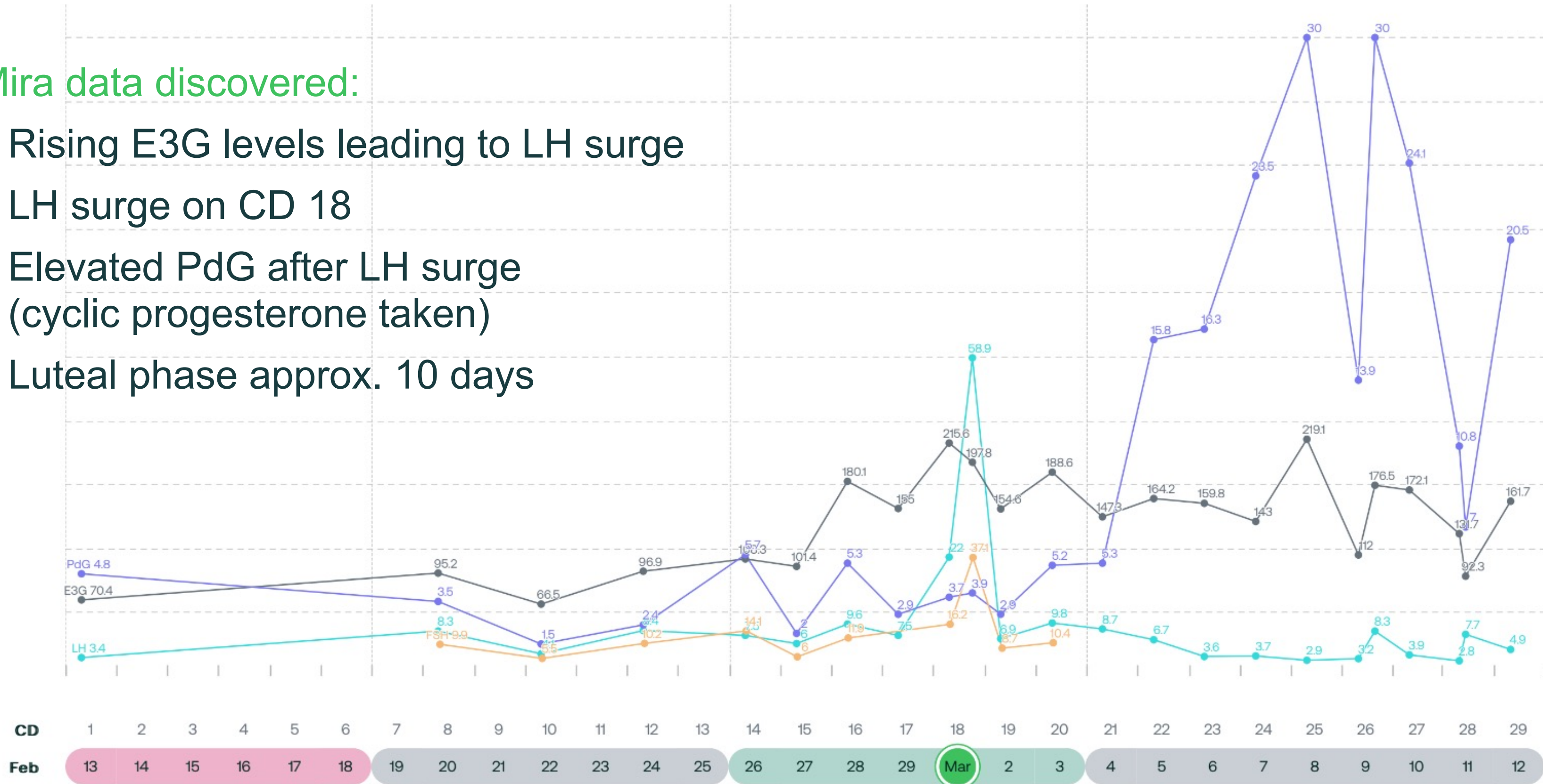# Initial Mira Chart

Mira data discovered:

- LH surge on CD 22–24 but "trailing off" until CD 26

- Elevated PdG after LH surge (cyclic progesterone taken)

- Luteal phase approx. 11 days
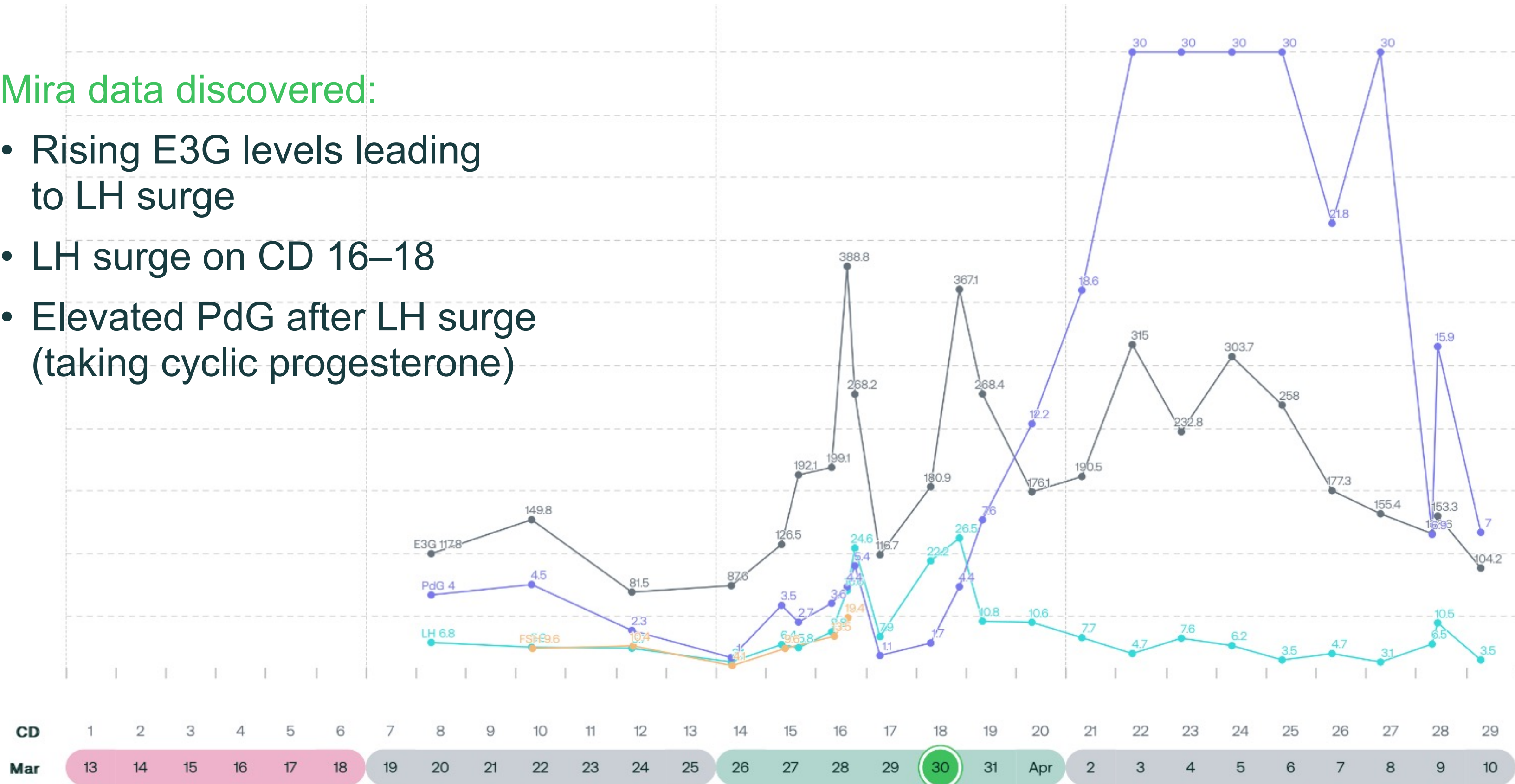
Second Mira Chart

Mira data discovered:

- Rising E3G levels leading to LH surge
- LH surge on CD 18
- Elevated PdG after LH surge (cyclic progesterone taken)
- Luteal phase approx. 10 days

Third Mira Chart: Conception Cycle

Mira data discovered:

- Rising E3G levels leading to LH surge

- LH surge on CD 16–18

- Elevated PdG after LH surge (taking cyclic progesterone)

Summary

After interventions, including cycling progesterone, the provider saw LH normalizing

Pregnancy occurred after 3 months of tracking using Mira

Thank you!