Review Article

Naturopathic Dietary Intervention and Regression of Bilateral Polycystic Ovarian Morphology: A Case Report

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ABSTRACT

Polycystic ovary syndrome (PCOS) is a common endocrine disorder in women of reproductive age, for which lifestyle and dietary modification are recommended as first-line management. We report a 27-year-old woman with cognitive limitations presenting with dysfunctional uterine bleeding, obesity, menstrual irregularity, and bilateral polycystic ovarian morphology on ultrasonography, with normal serum prolactin excluding hyperprolactinemia. She underwent a four-month naturopathic dietary and lifestyle intervention comprising therapeutic juices, resistant-starch-rich foods, and daily walking, with structured yoga omitted because of her cognitive limitations. At four-month follow-up, she had lost 14 kg, regained regular menstrual cycles with improved bleeding symptoms, and follow-up ultrasonography showed reduced right ovarian volume and a corpus luteum in the left ovary, consistent with restored ovulation; polycystic features persisted in the right ovary. This case illustrates a temporal association between a diet-centred naturopathic intervention and improvement in weight, menstrual regularity, and ovarian morphology, though substantial weight loss as a confounder and the absence of a biochemical hormonal panel preclude causal conclusions. Controlled studies with paired hormonal and metabolic assessment are needed to confirm these findings.

Key words: Polycystic Ovary Syndrome, Naturopathy, Diet Therapy, Weight Loss, Life Style, Case Reports.

Polycystic ovary syndrome (PCOS) is one of the most common endocrine and metabolic disorders affecting women of reproductive age. Polycystic ovarian morphology (PCOM) refers to the ultrasonographic appearance of enlarged ovaries with multiple small peripheral follicles and increased stromal echogenicity, and is one of the three Rotterdam criteria used in the diagnosis of PCOS [1]. Obesity, insulin resistance, oxidative stress, and chronic low-grade inflammation are recognised contributors to the pathophysiology of PCOS [2–5]. Hyperprolactinemia is an important differential diagnosis in women with menstrual irregularity and anovulation, as elevated prolactin suppresses gonadotropin-releasing hormone secretion and impairs follicular maturation; serum prolactin is therefore recommended during evaluation of suspected PCOS [8]. International guidelines identify weight management and lifestyle modification as first-line measures in overweight or obese women with PCOS, ahead of pharmacological therapy [6]. A small literature has examined combined naturopathy-and-yoga programmes in relation to PCOS-associated ultrasonographic change [9], though diet-only protocols are less well represented. Naturopathy emphasises therapeutic nutrition and lifestyle modification aimed at improving metabolic function, and may complement conventional management by promoting weight reduction and dietary quality; however, evidence for diet-centred naturopathic management remains limited [2–4,6]. We report the clinical course of a patient with bilateral PCOM managed with a diet- and lifestyle-centred naturopathic intervention, and discuss what can, and cannot, be concluded from a single case of this kind.

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CASE REPORT

Patient information

A 27-year-old unmarried woman presented with dysfunctional uterine bleeding (DUB), obesity, menstrual irregularity, fatigue, and reduced physical activity. She had cognitive limitations affecting her capacity for fully independent decision-making; structured yoga was therefore not included in her treatment plan, and mild walking was substituted.

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Clinical findings

On evaluation, the patient was obese (weight 69 kg) with irregular menstrual cycles and DUB. No other significant abdominal or pelvic abnormality was found on clinical or sonographic assessment.

Diagnostic assessment

Baseline transabdominal ultrasonography of the abdomen and pelvis (30.10.2025) revealed bilateral bulky ovaries with multiple peripherally arranged follicles and increased stromal echogenicity, consistent with bilateral PCOM. Right ovarian volume was ~19.9 cc and left ~11.4 cc. Per the revised 2003 Rotterdam consensus, PCOS is diagnosed when at least two of the following three criteria are met after exclusion of other endocrine disorders: (i) oligo- or anovulation, (ii) clinical and/or biochemical hyperandrogenism, and (iii) polycystic ovarian morphology on ultrasonography [1]. This patient fulfilled two of these criteria — menstrual irregularity (oligo-anovulation) and bilateral PCOM. Serum prolactin (18.12 ng/mL; reference range 4.79–23.30 ng/mL) was within normal limits, excluding hyperprolactinemia as an alternative cause of her anovulatory pattern [8].

Informed consent

Because the patient's cognitive limitations affected her capacity for fully independent decision-making, written informed consent for the intervention and for publication of de-identified clinical details and images was obtained from her legal caretaker/guardian, with the patient's assent sought to the extent she was able to provide it. As this was a retrospective report of routine clinical care in a single patient, rather than a prospective research study, Institutional Ethics Committee (IEC) approval was not necessary; formal consent for publication was obtained as described above.

Therapeutic intervention

The patient underwent a naturopathic dietary and lifestyle intervention for four months. The dietary plan emphasised fruits, vegetables, resistant-starch foods, and antioxidant-rich natural juices, aimed at supporting metabolic health and reducing inflammation. The specific physiological mechanisms by which individual components may have contributed were not investigated and remain speculative; outcomes should be interpreted as temporally associated with, rather than proven to be caused by, any single protocol component

Follow-up and outcomes

The patient attended regular follow-up visits; no adverse events were reported. Menstrual bleeding occurred in January, February, March, and April, interpreted by the treating team as more regular than at baseline. Follow-up ultrasonography (24.04.2026) showed a change from bilateral to unilateral polycystic morphology: polycystic features persisted in the right ovary (volume 16 cc, reduced from 19.9 cc) but resolved in the left, where a corpus luteum (~18×15 mm) was seen, consistent with ovulation. Follow-up serum prolactin (17.17 ng/mL) remained normal. Over the same period the patient lost 14 kg (69→55 kg), with fewer DUB symptoms and improved energy.

Patient perspective

A first-person account could not be obtained because of the patient's cognitive limitations. According to her legal guardian, the patient experienced a noticeable improvement during the intervention. Her menstrual symptoms and dysfunctional uterine bleeding were reduced, she became more physically active than before, and her weight loss was visibly apparent.

Table 1 summarises the protocol components; frequencies and quantities are as recorded in the clinical chart.

S. No.	Therapy	Intervention	Frequency / Dose	Notes
1	Juice therapy	Ziziphus mauritiana leaf juice	100 mL, once weekly	Traditionally used in naturopathy for its purported antioxidant properties; not independently quantified in this case.
2	Juice therapy	Mint juice	100 mL, once weekly	Traditionally described as having anti-inflammatory and digestive benefits.
3	Juice therapy	Ash gourd juice	150 mL, three times weekly (150+150+150 mL)	Low-calorie, water-rich vegetable juice; plausible contributor to overall caloric reduction.
4	Diet therapy	Resistant starch-rich food (poha / flattened rice)	200 g, three times weekly (200+200+200 g)	May support gut microbiota and insulin sensitivity, though the effect size in this case was not measured biochemically.
5	Nutrition therapy	Lemon and curry leaf juice	100 mL, once weekly	Source of vitamin C; intended to support iron absorption given the patient's anaemia.
6	Lifestyle modification	Mild walking and morning sunlight exposure	30 minutes, daily (morning)	Low-intensity activity selected in place of structured yoga, given the patient's cognitive limitations.
7	Decoction	Neem decoction	50 mL, once monthly	General hygiene measure; not directly linked to reproductive or metabolic outcomes.

Table 2 summarizes the baseline and follow-up findings.

Parameter	Baseline (Oct 2025)	After 4 months (Apr–May 2026)
Weight	69 kg	55 kg
Menstrual cycle	Irregular	Regular
Serum prolactin	18.12 ng/mL	17.17 ng/mL
Right ovarian volume	19.9 cc	16 cc
Left ovarian volume	11.4 cc	Not separately reported (corpus luteum present)
Right ovary morphology	Bulky, multiple peripheral follicles (polycystic)	Polycystic features persisting
Left ovary morphology	Bulky, multiple peripheral follicles (polycystic)	Corpus luteum, ~18 × 15 mm, consistent with ovulation
Dysfunctional uterine bleeding	Present	Improved

DISCUSSION

In this case, a four-month diet- and lifestyle-centred naturopathic intervention in a woman with bilateral PCOM was temporally associated with substantial weight loss (14 kg), restoration of menstrual regularity with reduced DUB symptoms, a reduction in right ovarian volume, and the appearance of a corpus luteum in the left ovary on follow-up ultrasonography — indirect evidence of restored ovulation — while polycystic features persisted in the right ovary.

These findings are broadly consistent with the existing literature linking weight reduction to improved ovulatory function in PCOS: obesity and insulin resistance are established contributors to PCOS-related ovarian dysfunction [2–5], and weight loss is recognised to improve insulin sensitivity and ovulatory function independent of the specific dietary method used to achieve it [2,6]. Similarly, Ratnakumari et al. reported improvement in polycystic ovarian morphology following a combined naturopathy-and-yoga intervention [9], and a diet rich in fruits and vegetables has separately been associated with reduced markers of oxidative stress and inflammation in metabolic disease [10], lending plausibility to the antioxidant- and inflammation-focused rationale of the present protocol. The corpus luteum identified at follow-up is consistent with the expected post-ovulatory endocrine physiology described by Hall [11], and the overall pattern of improvement parallels other naturopathy-based case reports of symptom resolution in chronic conditions, such as the ulcerative colitis case reported by Deepa et al. [12]. Unlike these prior reports, however, the present case combined resistant-starch and iron/vitamin-C-focused dietary elements with omission of yoga, reflecting an individualised adaptation for a patient with cognitive limitations.

This case is limited by its single, uncontrolled design (n = 1); the absence of core biochemical markers (androgens, LH/FSH ratio, fasting insulin/glucose, AMH) at either time point; and the substantial weight loss, which is a strong potential confounder independent of the specific naturopathic components used. Ultrasonographic PCOM features and corpus luteum presence are also cycle-dependent, so a single follow-up scan cannot fully distinguish genuine morphological reversal from normal cycle-to-cycle variation. Because the patient's caretaker, rather than the patient herself, provided primary consent, her own understanding and assent should be documented more explicitly in future reports of this kind. Controlled studies incorporating paired hormonal, metabolic, and haematological assessment are recommended to determine whether diet-centred naturopathic protocols of this kind have a reproducible, generalisable effect on PCOS-related ovarian dysfunction beyond that attributable to weight loss alone.

CONCLUSION

A four-month diet- and lifestyle-centred naturopathic intervention was temporally associated with weight loss, restored menstrual regularity, and favourable ultrasonographic change in a woman with bilateral PCOM. These findings are hypothesis-generating rather than confirmatory, and controlled studies with biochemical assessment are needed before such protocols can be recommended for PCOS-related ovarian dysfunction.

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