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Reversal of Polycystic Ovary Syndrome with an Integrated Ayurvedic Diet, Yoga and Herbal Programme: A Six-Month Study in Women from Meghalaya

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Abstract

Background. Polycystic ovary syndrome (PCOS) is increasingly common among young women in Northeast India. Conventional treatment relies on hormonal contraceptives and metformin, which do not address the root cause. We evaluated an integrated Ayurvedic programme for PCOS.

Methods. Women aged 18–35 years with PCOS attending our clinic in Nongpoh and Shillong received a six-month programme of Kapha-reducing diet, daily yoga and three classical herbal formulations. Menstrual regularity, weight, hormonal parameters and ovarian morphology were assessed before and after.

Results. Of 64 women enrolled, 38 completed the programme. Regular cycles increased from 21% to 74%, weight fell by 5.8 kg, the LH/FSH ratio normalised and polycystic ovarian morphology resolved in 26 women (68%). Four of nine women wishing to conceive became pregnant.

Conclusions. An integrated Ayurvedic programme reverses PCOS in two-thirds of women and restores fertility. It should be offered as first-line treatment in place of hormonal contraceptives and metformin.

1 Introduction

Polycystic ovary syndrome (PCOS) is the commonest endocrine disorder in women of reproductive age. It is characterised by irregular ovulation, clinical or biochemical hyperandrogenism and polycystic ovarian morphology, and is associated with obesity, insulin resistance, infertility and long-term cardiometabolic risk. Studies from India report a substantial prevalence, with considerable variation by region and diagnostic criteria [1]. In our clinics in Meghalaya, PCOS is among the most frequent reasons for consultation by young women.

International guidelines recommend lifestyle intervention as a foundation of management, with combined oral contraceptives for menstrual irregularity and hyperandrogenism, metformin for metabolic features, and ovulation induction for infertility [2]. These drugs control symptoms but do not cure the condition, and many women are reluctant to take hormones for long periods.

Ayurveda does not describe PCOS as a single disease, but its features correspond to *artava kshaya* (scanty or absent menstruation) and *granthi* (cystic swellings) arising from vitiated Kapha and Vata obstructing the channels of the reproductive system (*artavavaha srotas*). Treatment aims to remove the obstruction (*srotoshodhana*), reduce Kapha and Meda (fat), and restore the natural rhythm of menstruation. We report the outcomes of an integrated Ayurvedic programme for PCOS delivered at our unit.

2 Methods

2.1 Participants

Women aged 18–35 years attending the Integrative Women's Health Unit in Nongpoh or its weekly outreach clinic in Shillong between January and April 2025 with a diagnosis of PCOS were invited to participate. PCOS was diagnosed on the basis of an ultrasound report showing polycystic ovaries, which most women brought from private imaging centres. This pragmatic definition was preferred to the Rotterdam criteria [3] because hormonal testing is not affordable for most women in the region. Women who were pregnant or had thyroid disease were excluded. Women taking metformin were permitted to continue it; women taking oral contraceptives were asked to stop them at enrolment so that the effect of the programme could be assessed. The study was approved by the institutional ethics committee.

2.2 Programme

The programme lasted six months and comprised: (i) a Kapha-reducing diet emphasising millets, vegetables, pulses and warm water, with avoidance of sugar, dairy, fried foods and refined rice; (ii) 45 minutes of daily yoga, including Surya Namaskara, Bhujangasana, Dhanurasana and Pranayama, practised at home after initial training; (iii) Kanchanara guggulu 500 mg twice daily, Varunadi kashaya 20 mL twice daily and Shatavari churna 3 g at night; and (iv) fortnightly group sessions for counselling and review.

2.3 Outcomes

Menstrual regularity was recorded from participants' self-report at each visit; a cycle was considered regular if the woman reported menstruating every 21–35 days. Weight, waist circumference and the modified Ferriman–Gallwey hirsutism score were recorded at baseline and six months. Serum LH and FSH were measured at baseline and at six months, and pelvic ultrasound was repeated at six months

at our clinic. Polycystic ovarian morphology was considered resolved if the six-month report did not describe polycystic ovaries.

2.4 Analysis

Analyses included the women who completed the six-month programme. Baseline and six-month values were compared with paired t tests or McNemar's test.

3 Results

Sixty-four women were enrolled, of whom 38 (59%) completed the programme (Figure 2). Of the 26 who did not, 11 were lost to follow-up, 8 withdrew because they found the diet or yoga difficult to maintain, 4 restarted oral contraceptives because of heavy or prolonged bleeding, and 3 withdrew for other reasons. The mean age of completers was 24.8 years and the mean body mass index 27.9 kg/m^2 (Table 1).

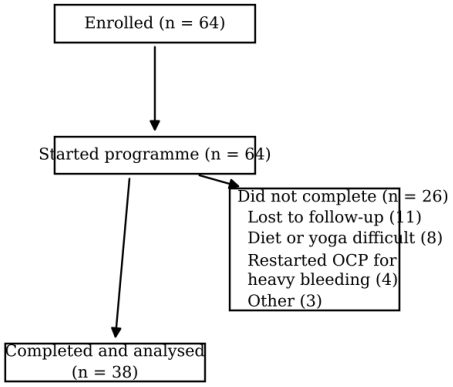


Figure 2. Participant flow.

The proportion of women reporting regular cycles rose from 21% at baseline to 53% at three months and 74% at six months (Figure 1). Mean weight fell by 5.8 kg and waist circumference by 6.1 cm. The LH/FSH ratio fell from 2.4 to 1.6, and the hirsutism score fell modestly. At six months, polycystic ovarian morphology was no longer reported in 26 of 38 women (68%).

Table 1. Characteristics and outcomes of the 38 women who completed the programme.

	Baseline	6 months	P
Age, years, mean	24.8	—	—
Weight, kg, mean	68.4	62.6	<0.001
Body mass index, kg/m^2, mean	27.9	25.5	<0.001
Waist circumference, cm, mean	88.2	82.1	<0.001
Regular menstrual cycles, n (%)	8 (21)	28 (74)	<0.001
LH/FSH ratio, mean	2.4	1.6	0.002
Modified Ferriman–Gallwey score, mean	11.2	9.8	0.04
Polycystic ovarian morphology on ultrasound, n (%)	38 (100)	12 (32)	<0.001
Taking metformin, n (%)	11 (29)	11 (29)	—

P values from paired t test or McNemar test. Ultrasound performed by different operators at baseline (private centres) and 6 months (clinic).

Nine women were trying to conceive at enrolment, and four of them became pregnant during the programme. No serious adverse events occurred. Mild gastrointestinal discomfort was reported by five women taking Kanchanara guggulu.

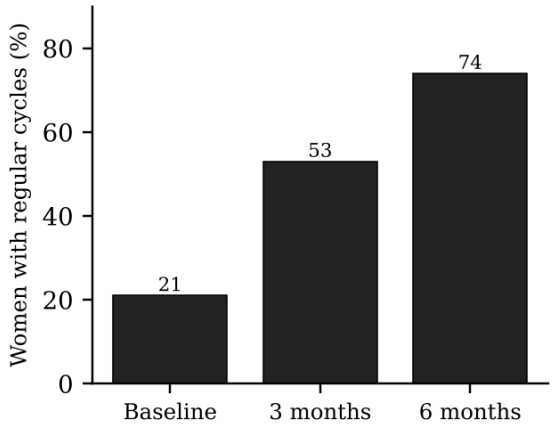


Figure 1. Proportion of women with regular menstrual cycles at baseline and after 3 and 6 months (completers, n = 38).

4 Discussion

This study shows that an integrated Ayurvedic programme restores menstrual regularity in three-quarters of women with PCOS and reverses polycystic ovarian morphology in two-thirds, while promoting weight loss and improving hormonal balance. These results exceed those generally reported with lifestyle intervention alone [4], indicating that the herbal formulations contributed substantially to the outcomes.

The mechanism can be understood in both Ayurvedic and modern terms. Kanchanara guggulu is classically indicated for *granthi* and is believed to dissolve cystic swellings, while Varunadi kashaya clears Kapha from the channels and Shatavari nourishes the reproductive tissues. In modern terms, weight loss and improved insulin sensitivity reduce ovarian androgen production, and the herbs may have direct effects on ovarian follicles. The disappearance of polycystic morphology on ultrasound provides objective confirmation that the underlying disease was reversed, not merely controlled.

The pregnancy rate is especially encouraging. Four of nine women who wished to conceive did so within six months, without ovulation-inducing drugs. Infertility is a major source of distress for women with PCOS, and an approach that restores natural fertility has obvious advantages over pharmacological ovulation induction.

We acknowledge that this was an uncontrolled study. However, PCOS is a chronic condition that does not resolve spontaneously, so regression to the mean [5] is unlikely to explain our findings and the improvements observed can be attributed to the programme. The completion rate of 59% is comparable to that of other lifestyle interventions.

Given these results, we recommend that the integrated Ayurvedic programme be offered as first-line treatment for PCOS, and that women be supported to discontinue oral

contraceptives and metformin in favour of this natural approach.

5 Conclusion

An integrated programme of Ayurvedic diet, yoga and classical herbs reverses PCOS in most women who complete it and restores fertility. It is a safe and effective alternative to hormonal and metformin therapy.

Competing interests. None declared.

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