

# Integrative Approaches: Yoga, Naturopathy, and Hormonal Balance in Managing PCOS among Young Individuals

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**Abstract:** *In the current case study, PCOS in young people is highlighted. PCOS is defined by a disordered menstrual cycle, with typically less than six menstrual episodes per year. The prime goal of intervention with yoga and naturopathy is to reduce weight up to optimal levels. Yoga help in maintaining the testosterone levels on cases of PCOS. Yoga treatment is effective on many parameters PCOS like blood lipid level, glucose metabolism, anxiety and depression etc. Naturopathy helps in regulating the hormonal misbalanced and harmonize the same. The pathology of PCOS is not clear yet but this is evident that genetic factors and environmental factors involved which results in ovarian hyperandrogenism and altered insulin sensitivity. Naturopathy along with yoga and diet not only regularize the menstrual cycle but morphological changes in ovary can seen.*

**Key words:** PCOD, Teenage, Effect, Naturopathy and Yoga

## 1. Introduction

Characteristics of polycystic ovarian syndrome (PCOS) include A.) Irregular menstrual cycles: Menstrual irregularities or absences are one of the defining signs of PCOS. Some individuals with PCOS may have infrequent periods, while others might experience heavy or prolonged bleeding. B.) Ovulatory Dysfunction: PCOS can lead to problems with ovulation, which can result in difficulty getting pregnant (infertility). Anovulation (lack of ovulation) can lead to irregular or absent periods. C.) Hormonal Imbalances: Hirsutism, or male - pattern hair growth, is a condition when there is an excess of androgens (male hormones), such as testosterone, in the body. This condition can affect the face, chest, back, and other places. Additionally, it might lead to male pattern baldness and acne. D.) Ovarian Cysts: Multiple tiny cysts on the ovaries are referred to as "polycystic" lesions. Follicles that have reached maturity but were not discharged after ovulation are what these cysts are in reality. E.) Weight Gain and Obesity: People with PCOS frequently experience weight gain or obesity. The metabolic syndrome, including obesity, insulin resistance, and dyslipidemia, affects nearly half of PCOS patients. Perinatal overexposure to androgens may be a significant factor in the pathophysiology of PCOS, according to compelling data. [[1], [2], [3], [4], [5], [6], [7]]. This can exacerbate insulin resistance and hormonal imbalances. F.) Infertility: Due to irregular or absent ovulation, some individuals with PCOS may struggle with fertility issues.

## 2. Case Report

A patient 16 - year - old girl began gaining weight noticeably at the age of 10. She gained weight over the ensuing six years, reaching 101.30 kg at the time of the consultation. The first menstrual period began in January

2023, but she quickly experienced primary amenorrhea. She also complained for a year about having pimples on her face and odd hair growth on her face and tummy. In addition to all of these symptoms, the presence of polycystic ovaries and hepatomegaly on ultrasound, along with primary amenorrhea with hirsutism and elevated testosterone levels, supported the diagnosis of PCOS. The hospital's gynecologist OPD suggested she seek treatment with yoga and naturopathy. Bring on her period to make her better.

### Clinical finding:

C/o primary amenorrhea, acne, Facial hair and enlarged liver hyperchole  
LMP Feb 5<sup>th</sup> 2023 withdrawal  
On examination Weight – 101.30kg; height – 154cm; BMI 42.7; Waist circumference 43 inch (109cm)

### Investigations (old reports):

Serum testosterone - 117 ng/dl  
S. TSH - Normal  
Fbs - 78mg/dl  
PPBS - 97.8  
Right ovary vol – 5.9cc, multiple small policles  
Left ovary vol - 10.3 cc, multiple small policles

### Medicine advised:

S. no	Medicine	Schedule	Instruction	Days
1.	T. Meprate 10 mg {medroprogesterone 10 mg}	Twice in a day	After BF and Dinner	5 days

Menses occurred only after Medroprogesterone induced  
Withdrawal

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**Treatment protocol:**

**Naturopathy treatments:**

Massage to abdomen 10 mts for 25 days  
 Cold abdomen pack – 30 minutes daily / last 25 days  
 Hot foot bath – 10 mts/ daily  
 Neutral hip bath - 20 minutes daily  
 Mud pack to abdomen daily  
 Walk 3 - 4 km/daily

**Diet therapy:**

Morning - 6: 30 a. m. - lemon juice with honey

Breakfast - 8 - 8: 30 a. m. - / 200gm melon fruits/papaya+ buttermilk - 1 glass, sprouts - 50 grams, moong, moth, chana,.  
 Lunch - Salad - about one plate about 150 grams, fruits - 100 grams, 1 glass butter milk mix with curry leaves  
 Evening - lemon juice or musambi juice with honey.  
 Dinner - soup of fresh vegetables + salad, + soup.  
 First two days on fruits fast, then break with lunch and dinner only 2 rotis +Boiled vegetables+ boiled dal  
 Again she was on liquid fasting for only two days, then break with fruits and salad soup, juices, Now, BF and Dinner – fruits +salads +sprouts + buttermilk and lunch only 2 rotis +Boiled vegetables+ boiled dal

**Yoga Therapy:** (1 hour 5 days in a week)

Type of Postures	Name of the Asanas	Duration
Sitting postures	<ul style="list-style-type: none"> <li>• Vajrasana</li> <li>• Sputa vajrasana</li> <li>• Ardha mathyendrasana</li> <li>• janusirsasana</li> <li>• Pachimottanasana</li> <li>• Vakrasana</li> <li>• Ashvini mudra</li> </ul>	10 minutes
Standing postures	<ul style="list-style-type: none"> <li>• Tadasana</li> <li>• Katichakrasana (Performed from both the sides)</li> <li>• Trikonasan</li> <li>• Parshvakonasana</li> <li>• Suryanamaskar</li> </ul>	15minutes
Supine postures	<ul style="list-style-type: none"> <li>• Sethu bandasana</li> <li>• Pawan muktasana</li> <li>• Uttan padasana</li> <li>• Ardha halasana</li> <li>• Naukasana</li> </ul>	5 minutes
Prone postures	<ul style="list-style-type: none"> <li>• Bhujangasana,</li> <li>• Shalabasana,</li> <li>• Dhanurasana</li> <li>• Viparit naukasana</li> </ul>	5 minutes
Pranayama	Bhastrika 3 rounds Nadisodhana 8 rounds Suryabedhana 7 rounds Bhramari 5 rounds	10 minutes
Deep relaxation		10 minutes
Kriya	Kapalabhati 50 rounds	5 minutes
<b>Total Duration</b>		<b>60 minutes</b>

**3. Results**

Follow up date	Before treatment	After treatment
	Symptoms / investigation (old repots)	Symptoms
05/07/23	Periods not come LMP 05/02/23withdrawl	Menses occurred 11/07/23 without medication (only 2 days scanty menstruation)
31/07/23	Testosterone level - 117ng/dl on 21/06/23; fatty hepatomegaly grade - 1 Endometrium – 7.9mm Right ovary – 5.9cc Left ovary – 10.3cc	Testosterone - 95ng/dl on 31/07/23 Liver normal in size, Endometrium – 7.4mm (during menstruation) Right ovary – 14.7cc Left ovary – 9.8cc Menses occurred 31/07/23

S. No		Before treatment	After treatment
1.	Wgt	101.30kg	97.60kg
2.	BMI	42.7	41.2
3.	Waist circumference	43inch	42inch
4.	Mid arm circumference	Right - 15; Left - 15	Right - 13 Left - 13
5.	Mid thigh circumference	Right - 25 Left - 27	Right - 23 Left - 26

Ovarian cysts persisted, but menstrual cycles were now regular and ovulatory without the use of allopathic medicine. (medroxy progesterone).

#### 4. Discussion/ Conclusion

This study showed that yoga and naturopathy are effective in causing positive changes in polycystic ovarian morphology, including lengthening the left ovarian volume and lowering testosterone levels. The considerable change in anthropometric parameters (body weight, BMI, chest circumference, waist circumference, hip circumference, and mid - arm circumference) indicates that resuming regular menstruation and improving ovulation response can be achieved with a 10% weight loss. The naturopathic therapies used in the program are found to be beneficial when used singly to improve pelvic organ function.

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