



Effect of Yoga (Konasanas) and Naturopathy (Neutral Hip Bath) as supportive interventions in PCOS management – A Case study

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ABSTRACT:

Background: Polycystic Ovary Syndrome (PCOS) is a multifactorial endocrine disorder affecting reproductive, metabolic, and psychological health in women of reproductive age. Standard medical management provides symptomatic relief but often carries side effects, necessitating complementary and holistic approaches. Objective: To assess the potential of Yoga (Konasanas) and Naturopathy (Neutral Hip Bath) as supportive interventions in PCOS management. Methods: Konasanas daily practice everyday morning and neutral hip bath everyday evening Results: Konasanas enhance pelvic circulation, regulate hypothalamic-pituitary-ovarian (HPO) axis activity, and reduce stress-induced cortisol release. The Neutral Hip Bath, a naturopathic hydrotherapy modality, improves pelvic blood flow, alleviates congestion, and supports hormonal homeostasis. Preliminary evidence indicates that Konasanas improve menstrual regularity, insulin sensitivity, and stress resilience, while Neutral Hip Bath reduces pelvic discomfort and promotes ovarian function. Integrative use of these therapies provides a non-invasive, cost-effective, and holistic approach to managing PCOS symptoms. Conclusion: Yoga and Naturopathy, particularly Konasanas and Neutral Hip Bath, demonstrate promising roles in the lifestyle-based management of PCOS.

INTRODUCTION

Polycystic ovarian syndrome was originally described in 1935 by Stein and eventual as a syndrome manifested by amenorrhea, hirsutism, and obesity associated with enlarged polycystic ovaries¹. It is the most common endocrine disorder in women of reproductive age¹. PCOS is a significant public health problem and is one of the commonest hormonal disturbances affecting women of reproductive age².

The condition affects an estimated 6–13% of women of reproductive age, and up to 70% of cases are undiagnosed². In INDIA, it is 3.7 - 22.5 %³. This heterogeneous disorder is characterized by excessive androgen production by the ovaries, mainly. PCOS is a multifactorial and polygenic condition. Dysregulation of the CYP 11a gene, upregulation of enzymes in androgen biosynthetic pathway, has been suggested. The insulin receptor gene on the chromosome is also involved⁴. Typically, the ovaries are enlarged. Ovarian volume is increased $\geq 10 \text{ cm}^3$. Stroma is increased. The

capsule is thickened and pearly white in color. Presence of multiple (>12) follicular cysts measuring about 2-9 mm in diameter is crowded around the cortex⁴. Diagnosis is based upon the presence of any two of the following three criteria [American society for reproductive medicine (ASRM)/ European society of human reproduction and embryology (ESHRE), 2003]⁵.

- A. Oligo and/or anovulation.
- B. Hyperandrogenism (clinical and/or biochemical).
- C. Polycystic ovaries.

The treatment choice for each symptom of PCOS depends on a woman's goals and the severity of endocrine dysfunction⁶. Treatment depends on her presenting symptoms like - menstrual disorder, infertility, obesity, hirsutism or combined symptoms. Treatment is primarily targeted to correct the biochemical abnormalities⁶. Thus, anovulatory women desiring pregnancy will undergo significantly different



treatment than adolescents with menstrual irregularity and acne. Patients often seek treatment for a singular complaint and may see various specialists such as dermatologists, nutritionists, aestheticians, and endocrinologists prior to evaluation by a gynecologist⁷. Weight reduction in obese patients is the first line of treatment. BMI < 25 improves menstrual disorders, infertility, impaired glucose intolerance, hyperandrogenemia and obesity. Weight reduction improves metabolic syndrome and reproductive function⁶.

Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual⁷. Polycystic ovary syndrome (PCOS) is a syndrome characterized by oligomenorrhoea, anovulation, infertility, hirsutism, and obesity in young women having bilaterally enlarged and cystic ovaries. The principal biochemical abnormalities in most patients are excessive production of androgens and low levels of pituitary follicle-stimulating hormone. The major complications associated with PCOS are infertility, diabetes, cardiovascular diseases, dyslipidemia, hypertension, glucose intolerance, and metabolic syndrome. Evidence shows lifestyle modifications as a viable first-line effective means for preventing PCOS. It has been well documented that lifestyle modifications, such as proper diet, yoga, and exercise, help in decreasing the symptoms and severity of the disease. Yoga has proven effects in reducing and managing the symptoms of polycystic ovarian syndrome more effectively. Because yoga helps in weight loss, relaxes the body and mind, relieves stress, regulates blood circulation, boosts the metabolism of the body⁸. Naturopathy - Nature cure is a constructive method of treatment that aims at removing the basic cause of disease through the rational use of the elements freely available in nature⁹.

Hydrotherapy is the application of water in various forms and temperatures on the body, either internally or externally, for the treatment of diseases and the maintenance of health. The neutral hip bath is highly antiphlogistic in character, and may be employed in subacute and even acute inflammatory conditions, such as acute catarrh of the bladder and urethra, and in subacute inflammations of the uterus, ovaries, and tubes. This bath is especially useful as a means of relief in

neuralgia of the Fallopian tubes or of the testicles, in vaginismus, pruritis of the anus and vulva, vesical and rectal tenesmus, hyperesthesia of the lumbo-aortic plexus, and in hyperesthesias of the genito-urinary organs. It is indicated as a sedative means in erotomania in both sexes, in priapism, and in cases of spermatorrhea accompanied by a marked hyperesthesia of the urethra and ejaculatory ducts, and in all cases of pelvic disease in which cold applications are inadmissible on account of pain or the inflammatory conditions which may be present¹⁰.

CASE REPORT

Patient Information -

A 26-year-old female patient visited our OPD, JSS Ayurvedic Medical College and Hospital, Mysore, with complaints of irregular cycle with duration of 2 to 3 days scanty bleeding at the interval of 60 to 70 days since 1 year. Later she got consulted with gynecologist and was advised for usg scan in which she was diagnosed PCOS.

The patient has no family history of diabetes mellitus. She attained menarche at the age of 14 years. Since then, her menstrual cycles have been irregular, with scanty flow of normal odor. The duration of bleeding is 2–3 days, occurring at an interval of 60–70 days. On the first day, she uses about half a pad, followed by three pads per day on the second and third days. She experiences significant pain during menstruation, with no passage of clots. Her obstetric history is P1A0L1. She has a history of contraceptive use. Regarding personal history, her diet is mixed, predominantly consisting of *Madhura* and *Lavana rasa*. She does not engage in regular exercise. Her nature of work is heavy, and she has the habit of consuming three cups of tea per day. Sleep is disturbed at night, and she does not take daytime sleep. Bowel movements occur once daily with semisolid consistency. Micturition occurs 6–7 times per day.

Clinical findings

The patient was in good condition, with a weight of 62 kg and a height of 158 cm. All vital signs and systemic examinations were normal.



Investigation

The ultrasound (USG) report indicated endometrial thickness - 4 mm, Follicle - Multiple small follicles - bilateral, ovarian volume - right - 4 cc and left - 5.7 cc

Diagnostic assessment - Polycystic Ovaries on USG, Oligomenorrhea

Diagnosis - PCOS

Therapeutic intervention

Selected *Konasanas* were practiced by the subject for 3 months every morning, along with a neutral hip bath for 20 minutes every evening except during the menstruation period.

INTERVENTION	
Konasanas	Practicing following asanas 2 rounds each minimum 30 seconds holding in final posture - <i>Parshvakonasana, Parivritta Konasana, Trikonasana, Parivritta Trikonasana, Upavishta Konasana, Suptakonasana, Baddhakonasana.</i>
Neutral hip bath	Everyday evening for 15 - 20 minutes - with neutral water

TIMELINE

2024 - August	Diagnosed with PCOS
March - 2025	Approached our OPD Scanty bleeding, no clots, Duration - 2-3 days Interval - 60 to 70 days Painful Weight - 62 kgs
March - 2025	Konasanas - every morning Neutral hip bath - every evening
April - 2025	Follow up - regular cycle Scanty bleeding, no clots, Duration - 2-3 days Interval - 45 to 50 days Painful Weight - 61 kgs
May - 2025	Follow up - regular cycle Moderate bleeding, no clots,



	Duration - 2-3 days Interval - 45 to 50 days Pain - moderate Weight - 62 kgs
June - 2025	Follow up - regular cycle Moderate bleeding, no clots, Duration - 4 to 5 days Interval - 30 - 35 days Pain - moderate Weight - 58 kgs

Parameters:

Parameters	Before Intervention	After Intervention
Interval of the cycle	Grade 3	Grade 1
Acne	Grade 1	Grade 1
Hirsutism	Grade 1	Grade 1
Acanthosis nigricans	Absent	Absent
Ferriman Gallwey score	3	3

USG SCAN -

USG REPORT	Before Intervention	After Intervention
	Endometrial thickness - 4 mm, Follicle - Multiple peripheral follicles and both ovaries bulky	Endometrial thickness - 7 mm, Ovarian volume -Right - 4 cc: left - 5.7 cc

NOTE: Patient's weight after intervention was reduced by 4 kgs

Follow up and outcome :-

During the intervention, we found considerable improvement in her menstrual cycle interval as well as pain was reduced. Patient felt more energetic and lethargy was reduced. Follow up was done after every 30 days. After a month of intervention patients interval of cycle was reduced from 60 - 70 to 45 - 50 days. On second follow up interval was 45 - 50 days and pain during the cycle was reduced. On 3rd follow up it was observed that the interval of cycle was 30 - 35 days and duration of cycle was 4 - 5 days , which was 2-3 days

before intervention. After the intervention patient had lost 4 kgs of her weight, without any diet restrictions. No significant change in acne, hirsutism , acanthosis nigricans and ferrimann gallwey score. At the time of 4th follow up USG scan reports showed significant change from : Endometrial thickness - 4 mm, Follicle - Multiple peripheral follicles and both ovaries bulky to Endometrial thickness - 7 mm, Ovarian volume -Right - 4 cc: left - 5.7 cc and no abnormalities detected.

DISCUSSION



Polycystic ovary syndrome (PCOS) is a common endocrine disorder that is characterized by menstrual irregularity and elevated serum androgens, and is often accompanied by insulin resistance. The etiology of PCOS is unknown. Lifestyle interventions and weight loss, where appropriate, remain first-line treatments for women with PCOS. Regular physical activity is recommended for women with PCOS to maintain a healthy weight¹¹. Presenting with a wide spectrum of manifestations including menstrual irregularities, anovulation, hyperandrogenism, metabolic disturbances, and psychological stress. Standard medical management provides symptomatic relief, such as regulation of menstrual cycles through hormonal therapy or improvement of insulin sensitivity with pharmacological agents. However, these approaches are often associated with side effects, are not universally effective, and fail to address the long-term lifestyle and psychosocial dimensions of PCOS. This limitation emphasizes the need for complementary and integrative approaches that are safe, cost-effective, and sustainable.

Yoga and Naturopathy are increasingly being explored as supportive interventions for lifestyle disorders, including PCOS. In this context, the practice of Konasanas offers significant therapeutic potential. By improving circulation to the pelvic region, these postures stimulate ovarian and uterine functions, which may help regulate the hypothalamic–pituitary–ovarian (HPO) axis. The exact mechanism of yoga therapy involves several physiological and psychological pathways that may improve insulin sensitivity, reduce inflammation, and decrease oxidative stress. It may also affect the hypothalamic-pituitary-adrenal (HPA) axis and the autonomic nervous system, which play important roles in regulating hormonal and metabolic functions. In addition, yoga may improve psychological well-being and reduce stress, which could indirectly improve PCOS symptoms¹².

Furthermore, Yoga has been shown to reduce cortisol levels and sympathetic overactivity, thereby mitigating the stress component that often exacerbates PCOS symptoms. Stress reduction also improves insulin sensitivity, which is crucial since insulin resistance is a major underlying factor in the pathophysiology of PCOS.

Naturopathy, particularly the Neutral Hip Bath, complements the effects of Yoga by providing direct hydrotherapeutic benefits. A neutral hip bath is a soothing and relaxing way to alleviate discomfort and promote healing. The water helps to

increase blood flow to the pelvic area, reducing inflammation and promoting relaxation of pelvic muscles. Taking a neutral hip bath can be especially

beneficial for those experiencing menstrual cramps, hemorrhoids, or urinary tract

Infections¹³.

The integration of Yoga and Naturopathy thus provides a dual approach — addressing both the systemic neuroendocrine regulation and the local pelvic environment.

CONCLUSION

The outcomes observed with the integration of these two therapies suggest significant improvements in menstrual health, metabolic balance, and overall well-being. Weight reduction, better hormonal regulation, and enhanced endometrial health further highlight their therapeutic potential. Importantly, these interventions empower women to take an active role in managing their condition, making lifestyle modification a central component of PCOS care.

In conclusion, Yoga and Naturopathy — especially Konasanas and Neutral Hip Bath — may serve as valuable supportive therapies in PCOS management. While initial observations are encouraging, larger and well-structured clinical studies are needed to establish their efficacy, standardize protocols, and facilitate their integration into mainstream healthcare as holistic and sustainable management strategies for PCOS.

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