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## Management of PCOS: A Psychosomatic Disorder by Yoga Practice

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### **Abstract:**

*Introduction- Polycystic ovarian Syndrome (PCOS), an emerging lifestyle disorder involving multiple systems occurring among 5-10 % of the Indian adult female population in their reproductive period. PCOS is a psychosomatic disorder so, it is important to provide Psychic and somatic treatment for it. Yoga is a complete prescription for the healthy body and mind which can destroy the root cause of PCOS i.e. obesity and stress. Ultimately leads to better quality of life. Aims and objective: To define role of Yoga in the management of PCOS. Method: There is a strong relation between obesity stress and PCOS. Approximately 50-60 % of women with PCOS are obese. Obesity and stress disturbs normal hypothalmo-pituitary –ovarian axis leads to insulin resistance produce stage of hyperandrogenism due to which somatic symptoms of PCOS like Hirsutism, Anovulation, Abnormal menstruation, Sub fertility, acne and psychic symptoms like anxiety, depression, insomnia, loss of concentration etc are develop. Weight loss of 5% to 10% may dramatically improve endocrine profile of PCOS. Result: The first step in management of PCOS is to get rid from obesity and stress. Surya namaskar, Paschimottan Asan, Bhujangasan, Shalabhasan etc. helps in weight reduction and excretion of toxins from the body. Stress can easily be tackled through meditation, Pranayamas relaxing yoga posture like Shavasana, Makarasana. Conclusion: Daily yoga for 30 minutes with 4 Asanas, 4 Pranayama, meditation and Shavasana helps in weight reduction and stress management which ultimately stabilize the normal function of hypothalmo- pituitary – ovarian axis and cure PCOS. Management of PCOS: A Psychosomatic Disorder by Yoga Practice*

**Keywords:** PCOS, psychosomatic disorder, yoga

### **1. Introduction**

Polycystic ovarian Syndrome (PCOS), an emerging lifestyle disorder involving multiple systems affecting 5-10 % of the women exhibiting the full blown syndrome of hyperandrogenism, chronic anovulation, and poly cystic ovaries. PCOS is a psychosomatic disorder of uncertain etiology characterized by Obesity, Anovulation associated with Primary or Secondary infertility, hirsutism, abnormal menstrual pattern, increased incidence of pregnancy loss, and pregnancy related complications. So, it is important to provide Psychic and somatic treatment for complete remission of PCOS.

Modern medical science has no ailment to cure PCOS, they only able to provide symptomatic treatment for it, which has unsatisfactory results lots of side effects and costly also and when medication not gives although symptomatic relief then they go for surgery drilling of ovaries. Now on other hand our divine ancient science cures PCOS without any side effects and free of cost that is Yoga practice.

Yoga is a complete prescription for the healthy body and mind which can destroy the root cause of PCOS i.e. obesity and stress. Moreover yoga is a great stress buster stress in women life can even lead to an unwanted weight gain. Entering into peaceful state lowers the production of the stress hormone cortisol which is one of the most important causes for storage of fat in the body. Yoga basically encourages one step outside of the comfort zone to better understand one's self from a very different perspective, optimistically. Ultimately leads to better quality of life.

### 1.1. Aims and Objective

To define role of Yoga in the management of PCOS.

## 2. Method

### 2.1. Definition of PCOS

PCOS to be present if 2 out of 3 criteria are met: (1) Oligoovulation and or Anovulation, (2) Excess Androgen activity, (3) Poly Cystic Ovary (by Transvaginal USG) and other causes of PCOS are excluded.

It is important to know that PCOS can present in any age. Many can be diagnosed in young children, some might not present until after menopause.

### 2.2. Etiopathogenesis

#### 2.2.1. Concept of Ayurveda behind Etiopathogenesis of PCOS

According to Ayurveda the Ahara factor (diet), Vihar factor (day sleep and overnight work, lack of meditation and exercise) and Manasic factor (sedentary life style and psychological factor) play important role in manifestation of PCOS. These factors lead to vitiation of Vata-kapha dosha converted into Vata-kapha Artava dushti or Granthi bhoot Artava

In Ayurveda, there are two types of abnormal dietetic habits Atisantarapana which cause infertility and obesity and Atiapatrapana which causes Sukra Mamsa Parikshaya. Aahara with Madhura, Sheeta, Snigdha, Guru, Pichchila etc properties are dominant with Prithvi and Jala Mahabhootas and add to the quantity of Meda and Kapha of the body. Faulty food habits like Adyashana and Virudhaashana and popularity of fast foods leads to vitiation of Jatharagni and leads to production of Ama which starts the pathogenesis of obesity. Lack of exercise, day sleep and overnight work promotes fat deposition ultimately converted in Vata kapha Artava dusti (PCOS).

### 2.3. Concept of Modern science

The etiology is multifactorial.

Certain hypothesis related to the etopathogenesis,

1. Abnormality of HPO axis
2. Genetic inheritance
3. Hyperinsulinaemia arising from receptor dysfunction
4. Adrenal/ ovarian hyperandrogenaemia.

PCOS is associated with peripheral insulin resistance. Obesity which is commonly associated with PCOS has an additive negative effect on insulin resistance.

Specifically, hyperinsulinaemia increases GnRH pulse frequency, LH over FSH dominance, increased ovarian androgen production, decreased follicular maturation, and decreased SHBG binding, all these steps lead to the development of PCOS. Insulin resistance is a common finding among both normal weight and overweight PCOS patients.

### 2.4. Somatic Symptoms

Common symptoms of PCOS include-

1. Oligomenorrhoea and amenorrhoea-irregular menstrual periods; cycles that do occur may be heavy
2. Infertility due to Anovulation.
3. Dyspareunia- painful coital act
4. Prolonged periods of PMS like symptoms (Bloating, mood swings, pelvic pain, backaches).
5. Hirsutism-unwanted body hair, typically in a male pattern affecting face, chest and legs.
6. Androgenic alopecia-male pattern baldness.
7. Acne, oily skin, seborrhoea.
8. Acanthosis-dark patches of skin, tan to dark brown or black, a sign of insulin resistance, which is associated with PCOS.

### 2.5. Psychic Symptoms

PCOS is a frustrating experience for a woman because of it puts a question mark on her fertility potential, feminine looks due to excessive hairs of face and acne. These all turn her into Depression, Anxiety, Disturbed sleep, General Fatigue, loss of self confidence.

### 2.6. Diagnosis

The diagnosis of PCOS is usually based on the clinical, ultrasonographic and biochemical criteria.

#### 2.6.1. Clinical Diagnosis

Confirm by history taking specifically for menstrual pattern, obesity, Hirsutism, and the absence of breast discharge.

### 2.6.2. Transvaginal Sonography

There may be 10 or more cysts in each ovary, increased ovarian size(>10cm<sup>3</sup>), increased stromal echogenicity, and accumulation of small follicular cysts in a “string of pearls” pattern (approximately 12 follicles between 2 mm and 9 mm in size) are observed. The numerous follicles mean that the ovaries are generally 1.5 to 3 times larger than normal.

### 2.6.3. Biochemical Parameters

Elevated serum levels of androgens including Dehydroepiandrosterone sulphate (DHEAS) and testosterone : Free testosterone is more sensitive than total ; free androgen index is often used as a substitute.

The ratio of LH to FSH is greater than 1: 1, as tested on Day 3 of the menstrual cycle. The pattern is not very specific.

SHBG estimation- there is often low levels of SHBG.

### 2.6.4. Risks

Women with PCOS are at risk for the following

1. Endometrial Cancer
2. Insulin resistance Type II diabetes
3. Hypertension
4. Cardiovascular disease
5. Weight gain
6. Osteoporosis
7. Miscarriage

### *2.7. Modern Treatment*

Insulin sensitizers Agents, oral contraceptive pills, Ovulation Induction in Infertile PCOS. Surgical: The patients who become resist to medical treatment then Laproscopic ovarian drilling.

Risks of modern Treatment: Unsatisfactory results, enormous expenses, Disturbs the natural biological system for hormonal production, other systemic disorders occurs.

### *2.8. How Stress & Obesity Responsible For PCOS?*

There is a strong relation between obesity stress and PCOS. Approximately 50-60 % of women with PCOS are obese. Obesity and stress disturbs normal hypothalamo-pituitary –ovarian axis leads to insulin resistance produce stage of hyperandrogenism due to which somatic symptoms of PCOS like Hirsutism, Anovulation, Abnormal menstruation, Sub fertility, acne and psychic symptoms like anxiety, depression, insomnia, loss of concentration etc are develop. A reduction of Weight as small as even 7% may dramatically improve endocrine profile of PCOS and restore fertility. Due to Stress cortisol levels becomes high (the stress hormone) and it is one of the major cause of fat storage and weight gain.

### *2.9. How Can Yoga Reduce Stress & Obesity?*

Although it is impossible to eliminate stress completely from our day-to-day life, we can surely build up our capacity to deal with it. This is where yoga and meditation help. Yoga is a great stress buster stress in women life can even lead to an unwanted weight gain. Entering into peaceful state lowers the production of the stress hormone cortisol. Cortisol causes the body to store fat. Yoga eases any stress through breathing techniques that bring complete relaxation within the body. Relaxation can work to offset the effects of hormonal imbalance and take care of any negative emotions, irritability and frequent mood swings. Practicing Surya Namaskar is the easiest way to be in shape. Yoga strengthens the muscles, improves hormonal levels and combats insulin resistance. Yoga along with a healthy diet helps to lose weight.

Reasons that yoga might help the weight loss process include:

1. Effective stress management, reducing the likelihood of stress eating
2. Increased body awareness, specifically relating to hunger and satiety

Mindfulness and mindful eating

### *2.10. How Yoga Is Beneficial for Women with PCOS?*

The science of yoga works at root cause of PCOS i.e. stress and Obesity. Yoga is much deeper than just the physical body level. Yoga helps to release deeply stored stress in the system, which can help improve PCOS symptoms.

1. Holding weight-bearing poses builds muscle. In turn, increased muscle mass helps to combat insulin resistance – one of the keys to PCOS management.
2. An active yoga practice increases heart rate, providing a cardiovascular workout and leading to weight loss.
3. Aasanas and pranayama promotes hormonal balance and deep relaxation, helping to bring the adrenal and cortisol levels of stressed-out PCOS minds and bodies in check.
4. Yoga philosophy and Ayurveda, describe certain poses as stimulating energy systems within the body that may be stagnant in women with PCOS as a means to bring the body into balance.

Yet yoga's benefits for women with PCOS are not limited to the body alone. One of the definitions of "yoga" is "to unite" – and modern yoga practice unites body, mind, breath, and spirit.

### 3. Results

The first step in management of PCOS is to get rid from obesity and stress. Relaxation is the key in PCOS. Integrating yoga and meditation at an early age in life can help us attain a disease-free body and a healthy mind. Asanas (yoga postures) designed for PCOS help open up the pelvic area and promote relaxation and pranayamas (breathing exercises) are powerful techniques that help to keep mind calm. Coupled with these are some soothing meditations that work at a very deep level and help de-toxify and de-stress the entire system.

#### 3.1. Yoga Exercises to Improve PCOS

Recommended Asanas for PCOS are:

1. Badhakonasana (Butterfly pose)
2. Suptabhadhakonasana (Reclined bound angle)
3. Bharadvajasana (Bharadvajasana twist's)
4. Chakki Chalanasana (Mill churning pose)
5. Shavasana (Corpse pose)
6. Padma Sadhana
7. A few rounds of Surya namskar (Sun Salutation).

Practicing these Asanas will become a reason to boost the health of the pelvic organs such as uterus and ovaries and improve functioning of the endocrine glands.

### 4. Conclusion

Yoga is a holistic science and art of living. This is because routines Yoga Asanas (poses), Pranayamas breathing techniques and Kriyas (cleansing exercises) prescribed in Yoga help to tone up the whole system.

Daily yoga for 30 minutes with 4 Asanas, 4 Pranayama, meditation and Shavasana helps in weight reduction and stress management which ultimately stabilize the normal function of hypothalamo- pituitary – ovarian axis and cure PCOS. So, it is time to acknowledging the role of Yoga as a safe and effective treatment for PCOS.

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