

## Management of Polycystic Ovarian Syndrome by Yoga Practices: A Review

Dr. Priyanka Undre<sup>1</sup> Dr. Shaikh Akhil Shaikh Chand<sup>2</sup> Rameshwar Bhojane<sup>3</sup>

*Assistant Professor, Dept of Swasthavritta and Yoga , SST's Ayurved College, Sangamner*

*Assistant Professor, Dept of Panchakarma, SST's Ayurved College, Sangamner*

*PG Scholar, Dept of Shalyatantra, GAC, Nanded*

Submitted: 01-10-2023

Accepted: 10-10-2023

### 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 treatment 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. **Aim:** To define role of Yoga in the management of PCOS. **Method:** There is strong relation between obesity and stress in 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. 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. Suryanamaskar, Paschimottanasana, Bhujangasan, Shalabhasan etc. helps in weight reduction. Stress can be relieved through meditation, Pranayama relaxing yoga posture like Shavasana. **Conclusion-** Daily yoga for 30 minutes with 4 Asana, 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.

**KEYWORDS:** PCOS, Yoga, Pranayama, Asana.

### I. INTRODUCTION

Polycystic ovarian Syndrome an emerging lifestyle disorder involving multiple system. PCOS is a psychosomatic disorder of multiple etiology. Symptomized by Obesity, Anovulation associated with Primary of Secondary infertility, Hirsutism, abnormal menstrual cycle, increased incidence of pregnancy loss, and pregnancy related complications. So, it is important to provide psychic and somatic treatment for complete cure of PCOS. Modern medicine has no medicine to cure PCOS, Modern medicine only able to treat symptomatically .which has no accurate results with lots of adverse effects and costly too and when medicine have no effect symptomatically then there is only treatment like surgery drilling of ovaries and on other side our ancient science cures PCOS without any side effects and free of cost that is Yoga practice. Yoga is a complete treatment for the healthy body and mind which can destroy the root cause of PCOS i.e. obesity and stress.

Yoga is a one of the great stress reliever, Stress in women life can even lead to an unwanted weight gain. Due to Yoga decrease production of the stress hormone Serum cortisol which is causes storage of fat in the body.

### AIMS AND OBJECTIVE

To explain role of Yoga in the management of polycystic ovarian syndrome.

### Method

Different article, journal and books were analyzed and reviewed for the literature about yoga and polycystic ovarian syndrome.

Definition of PCOS- PCOS can be occurred when following symptoms are present

- Oligoovulation or Anovulation
- Excess Androgen activity
- Poly Cystic Ovary (by USG)

PCOS can occur at any age. Some women can be diagnosed in young age, some women not present until after menopause.

#### Etiopathogenesis According to Ayurveda

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

In Ayurveda, there are two types of vikrut aharaja pravrutti, Atisantarapanaj which cause obesity and infertility Atiapatrapanaj which causes Shukra Mansa kshaya.

Aahara with Madhura, Sheeta, Snigdha, Guru, Pichchila etc. properties are dominant of Prithvi and Jala Mahabhootas and add to the quantity of Meda and Kapha of the body. Outside food habits like Adyashana and Virudhaashana and popularity of junk 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 vitiated fat deposition ultimately converted in Vata kapha Artava dusti (PCOS).

#### According to Modern science Etiology is multiple

- Abnormality of HPO (hypothalamo pituitary ovarian) axis
- Genetic inheritance
- Hyperinsulinaemia arising from receptor dysfunction
- Adrenal/ ovarian hyperandrogenaemia.

PCOS is associated with peripheral insulin resistance. Obesity which is common symptom with PCOS. Specifically, Hyperinsulinaemia increases GnRH pulse frequency, high level of LH contribute to high level of androgen (male hormone, testosterone) production, with low level of FSH contribute to poor ovum development and inability to ovulate, and decreased SHBG(Sex hormone binding globulin) binding, all these steps lead to the development of PCOS. Insulin resistance is common finding among both normal weight and overweight PCOS patients.

#### Somatic Symptoms

- Oligomenorrhoea and amenorrhoea-irregular menstrual cycles.
- Infertility due to Anovulation.

- Dyspareunia- painful coital act
- Prolonged periods of premenstrual symptoms like (Bloating, mood swings, pelvic pain, and backaches).
- Hirsutism-unwanted body hair, typically in a male pattern affecting face, chest and legs.
- Androgenic alopecia-male pattern baldness.
- Acne, oily skin, seborrhea.
- Acanthosis- dark patches of skin, a sign of insulin resistance, which is associated with PCOS.

#### 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 turns into Depression, Anxiety, Disturbed sleep, General Fatigue, loss of self-confidence.

#### Diagnosis

The diagnosis of PCOS is usually based on the clinical, ultrasonography and biochemical parameter.

#### Clinical Diagnosis

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

#### 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.

#### 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.

### Risks

Women with PCOS are at risk for the following

- Endometrial Cancer
- Insulin resistance Type II diabetes
- Hypertension
- Cardiovascular disease
- Weight gain
- Osteoporosis
- Miscarriage.

### Modern Treatment

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

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

### Yoga Reduce Stress & Obesity?

It is impossible to remove stress completely from our day-to-day life; we can surely build up capacity to deal with it. This is where yoga and meditation help. Yoga is a great stress reliever; stress in women life can even lead to an unwanted weight gain.

Due to Yoga, lower the production of the stress hormone serum 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:

- Effective stress management, reducing the likelihood of stress eating
- Increased body awareness, specifically relating to hunger and satiety
- Mindfulness and mindful eating.

### 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.

### Keys to PCOS management

- Holding weight-bearing poses builds muscle. In turn, increased muscle mass helps to combat insulin resistance – one of the key to PCOS management
- An active yoga practice increases heart rate, providing a cardiovascular workout and leading to weight loss.
- Asana 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.
- 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 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.

## II. 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 pranayama's (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 distress the entire system.

### Yoga Exercises to Improve PCOS Asanas for PCOS

- A few rounds of Surya Namaskar (Sun Salutation)
- Paschimottanasana
- Bhujangasan
- Shalabhasan
- Shavasana.

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.

### III. CONCLUSION

Yoga is a holistic science and art of living. This is because routines Yoga Asanas (poses), pranayama's breathing techniques and Kriyas (cleansing exercises) prescribed in Yoga help to tone up the whole system. Daily yoga for 30 minutes with 4 Asanas, 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.

### REFERENCES

- [1]. D.C. Dutta, Text book of gynecology, 4<sup>th</sup> edition, 2007; 27: 422.
- [2]. Gautam N Allahbadia, Rubina Merchant, Gynecological Endoscopy and Infertility, edition 1<sup>st</sup>, 2006; 8: 73-74.
- [3]. Gautam N Allahbadia, Rubina Merchant, Gynecological Endoscopy and Infertility, edition 1<sup>st</sup>, 2006; 8: 71.
- [4]. Gautam N Allahbadia, Rubina Merchant, Gynecological Endoscopy and Infertility, edition 1<sup>st</sup>, 2006; 8: 72.
- [5]. Dunaif A. Hyperandrogenic anovulation (PCOS): A unique disorder of insulin action associated with an increased risk of noninsulin dependent diabetes mellitus. Am J Med., 1995; 98: 33S-39S.
- [6]. Franks S. Polycystic ovary syndrome. N Engl J Med., 1995; 333: 853-61.
- [7]. <http://www.speakingtree.in/health/yoga> date, 13/6/14.
- [8]. Frank S, Kiddy D Sharp Pet al. Obesity and polycystic ovary syndrome. Ann NY Acad Sci., 1991; 626: 201-6.
- [9]. <http://healthmedup/topic/yoga> date, 13/6/14.
- [10]. <http://yogaandbreath.org> date, 13/6/14.
- [11]. <http://www.healthmevup.com/photogallery-health-living/polycystic-ovary-syndrome-pcos-yoga-posturesforPCOS/19963/5> date, 13/6/14.
- [12]. <http://www.yogajournal.com/composes/987> date, 13/6/14.
- [13]. <http://artofliving.org/in-en/yoga-poses> date, 13/6/14.
- [14]. <http://artofliving.org/in-en/yoga-poses-copse-pose-svasasan> date 13/6/14
- [15]. Sabaratanam Arulkumaran, Essential of Gynecology, 2nd edition, poly cystic ovarian syndrome chap., 30; 367.