

## International Research Journal of Ayurveda & Yoga

An International Peer Reviewed Journal for Ayurveda & Yoga



### Role Of Surya-Namaskara In Polycystic Ovarian Syndrome: A Conceptual Study

Swati Alha,<sup>1</sup> Mahesh Kumar,<sup>2</sup> Hetal H. Dave,<sup>3</sup> Baldev Kumar<sup>4</sup>

VOLUME 4 ISSUE 7

1. Assistant professor, Department of Prasuti & Stree Roga, Punjab Ayurved Medical collage & Hospital, Morjanda khari, Sriganaganagar

2. Assistant Professor, P.G. Department of Swasthavritta & Yoga, Dr. Sarvepalli Radhakrishnan Rajasthan Ayurveda University, Jodhpur

3. Assistant Professor, P.G. Department of Prasuti & Stree Roga, National Institute of Ayurveda, Jaipur

4. Prof. Baldev Kumar, Vice Chancellor, Shri Krishna AYUSH University, Kurukshetra, Haryana

**Corresponding Author :-** Dr. Swati Alha, Assistant professor, Department of Prasuti & Stree Roga, Punjab Ayurved Medical collage & Hospital, Morjanda khari, Sriganaganagar

Article received on 7<sup>th</sup> Jan 2021

Article Accepted 17<sup>th</sup> July 2021

Article published 31<sup>st</sup> July 2021

#### ABSTRACT: -

Polycystic ovarian syndrome or PCOS is quite a common hormonal disorder in women and is characterised by ovarian cysts. PCOS causes hormonal imbalance in women leading to menstrual irregularities, ovulation and fertility problems. Obesity (central) is recognised as an important contributory factor and also induces insulin resistance and hyperinsulinemia. Polycystic ovary may be seen in about 20-30% of normal women in young reproductive age group. *Yoga* is a discipline to improve or develop one's inherent power in a balanced manner. *Surya namaskara* gives body a quick and nice workout. It improves blood circulation results in low cholesterol levels and proper circulation is a good hormonal balance. *Surya namaskara* helps in reducing weight, better regulation in menstrual cycle and regular practice of *Surya namaskara* helps to normalise the blood sugar. Therefore, it is being realized that it might be possible to exploring the role of above given *Surya namaskara* in the treatment of PCOS.

**Key words:** Hormones, Insulin resistance, Obesity, Polycystic ovarian disease, *Surya namaskara*, *Yoga*.



This work is licensed under a creative attribution -Non-commercial-No derivatives 4.0 International License commons

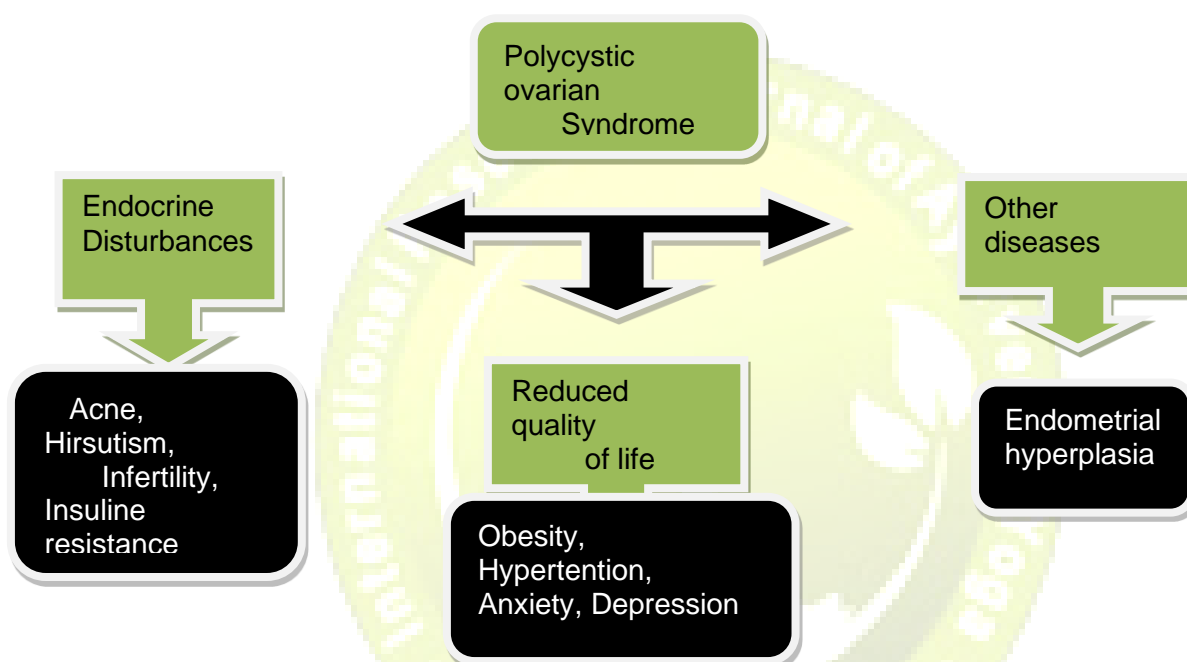
**How to cite this article:** Alha S, Kumar M, Dave H, Kumar B "Role Of Surya-Namaskara In Polycystic Ovarian Syndrome: A Conceptual Study" IRJAY. [Online] 2021;4(7): 117-120. Available from: <http://irjay.com> ;

DOI: <https://doi.org/10.47223/IRJAY.2021.4716>

## INTRODUCTION

Polycystic ovarian syndrome is a common endocrinopathy typified by oligo-ovulation or anovulation, signs of androgen excess, and multiple small ovarian cysts <sup>[1]</sup>. PCOS affects 4-6% of women, the full blown syndrome of hyperandrogenism, chronic anovulation and polycystic ovaries <sup>[2]</sup>. Obesity

(android obesity) is found in over 50% of women with PCOS which indicates an increased risk of diabetes mellitus and cardiovascular disease in later life. About one third of obese PCOS patients have impaired glucose tolerance (IGT) and 7.5% to 10% have type 2 diabetes mellitus <sup>[3]</sup>. Insulin resistance and hyperinsulinemia are commonly exhibited in PCOS <sup>[4]</sup>.



### **SURYA-NAMASKARA:**

*Surya-pooja* has been an integral part of *Dincharya* in ancient India. Reference of *Surya-pooja* found in *Rigveda* <sup>[5]</sup>. *Surya-namaskara* is also known as Sun salutation, is a sequential combination of *yogic* postures performed dynamically in synchrony with the breath. *Surya-namaskara* is a sequence of 12 powerful *Yoga* poses. It is accompanied by a specific breathing pattern and chanting mantras. Its origin lies in a worship of *Surya*, the *Hindu* solar deity. *Surya-namaskara* an age-old *yogic* practice is a comprehensive exercise, which contributes to mental, emotional, physical and spiritual well-being.

### **Preventive And Therapeutic Role Of *Surya-namaskara*:**

*Surya-namaskara* a component of *Hatha Yoga* has been practiced by Asian Indians for hundreds of years. It consists of a series of postures (*Asanas*) that are repeated 12 times per round with chanting mantras.

Stress is the one of the main cause which responsible for Hyperandrogenism. In response to stress the pituitary gland secretes more ACTH, ACTH also stimulates the production of adrenal androgen hormones which raised level contribute to PCOS. *Surya-namaskara* can make the body fit, calm the mind and pave way for a stress free well- being. It plays an indispensable role in physical activity. *Yoga*

has been virtually advised due to its supremacy role on parasympathetic nervous system, which ensures the mind and body well-being.

*Surya-namaskara* is effective in stimulating the pituitary gland which responsible for producing hormones that activates or trigger thyroid and adrenal glands.

Obesity (Central) is recognized as an important contributory factor in PCOS. It also induces insulin resistance and hyperinsulinemia. Regular practice of *Surya-namaskara* will help in reducing overall body fat. Each round of *Surya-namaskara* takes roughly a minute and 12 rounds can be safely done in 10 minute. According to the Art of living, “One round of *Surya-namaskara* burns upto 13.90 calories for an average weighting person.”

*Surya-namaskara* is a very good exercise for people suffering from diabetes because it increase the blood supply to various parts of body and thus improves insulin administration in body [6]. A brisk *Surya-namaskara* increases cellular requirements for oxygen and glucose, which stimulate the production of insulin through brain signaling [7].

The benefits of *Surya-namaskara* extend to the cardiovascular level as well. It is beneficial in keeping the blood pressure levels in control and may help keep the cholesterol levels normal [8]. Performing the *Yogic* postures promotes blood circulation and the intake of oxygen increase in body, which helps strengthen the heart.

*Surya-namaskara* is a good mental and physical activity, as preventive and therapeutic aspect its regular practice can reduce the risk of anxiety, obesity, hyperinsulinemia which leads to PCOS in later stage. In therapeutic manner, it relieves the stress and helps to control the cholesterol level, blood sugar level and regulate the hormones.

### **Ayurvedic perspective of PCOS:**

In Ayurveda, the balance state of *Doshas* is

mainly responsible for health and any derangement to this will lead to disease.

By the outlook of the symptoms of PCOS as per modern description, it becomes clear that even though they are not complicated as a syndrome in *Ayurveda* most of them have been described as features of conditions [9].

Symptoms of PCOS described in modern, mentioned in *Ayurveda* as-

- Menstrual irregularities have been described under *Artavas vyapadas* or *Yonirogas*.
- Obesity is the condition described as ‘*Sthoulya*’
- Hyperinsulinemia leads to type 2 Diabetes mellitus, and is described under *Premaha*. It is also manifested as a complication of *Sthoulya*.
- Acne has been described as *Mukhadooshika*.

*Vata* and *Kapha doshas* as well as *Vishama Ahara* and *Vihara* lead to *Mandagni* and also *Rasavaha srotodushti* causes production of *Ama*. This *Ama* production cause improper enzymatic reactions leading to incomplete metabolism and hormonal imbalance. This hormonal imbalance causes hyperinsulinemia and amenorrhea / oligomenorrhoea and ovarian abnormalities like PCOS [10].

*Rasavaha srotodushti* and *mandagni* leads to *Sthoulya* [11] ultimate it causes the *Premaha*.

*Surya-namaskara* works as a warm up practice towards *Asana* and the overall physical body including the endocrine, respiratory, circulatory and digestive system.

As per Ayurveda, the body moves from *Vata* phase before sunrise to *Kapha* phase after sunrise. *Surya-namaskara* at sunrise is connecting between the airy movements of *Vata* and the sluggish *Kapha* to activate the fire of *Pitta-Agni*. Thus actively bringing all three *Dosha* into play to bring optimal health as defined by *Ayurveda*.

“*Sama Dosha sama agnischa sama dhatu mala kriyaahaa /*

*Prasanna atma indriya manaha swastha iti*

*abhidheeyate ||*” - Sushruta Sutra Sthana <sup>[12]</sup>

*Surya-namaskara* is a complete *Sadhana*-spiritual practice; in itself for it include *Asana*, *Pranayama*, *Mantras* and meditation techniques.

## CONCLUSION

The practice of *Yoga* is a tremendous gift from our Indian culture. *Yoga* is the key of better living. Regular practice of *Surya-namaskara* immunizes the whole body. This action stimulates metabolic rate producing heat and flushing toxins and out of the body. *Surya-namaskara* promotes calmness of mind and subsidizes stress and anxiety level. So from this study it can be concluded that regular practice of *Surya-namaskara* reduce the stress, depression, anxiety and regulate the body hormones as well as positive results in mental and physical level, which help to cure PCOS.

## REFERENCES

1. Dutta D.C., DC Dutta's Text book of Gynaecology, (6<sup>th</sup>ed.) Nov.2013, 28; pp.459.
2. Dutta D.C., DC Dutta's Text book of Gynaecology, (6<sup>th</sup>ed.) Nov.2013, 28; pp.459.
3. Kumar Pr, Malhotra N, Jeffcoate's Principles of Gynaecology, (8<sup>th</sup> edition) 2014;pp.360
4. Berek, Jonathan S., Berek & Novak's Gynecology, 14<sup>th</sup> edition, 2007, 28; 1070.
5. Rigveda Prathmaashtaka chaturtha adhyaya page no. 420
6. Raveendran A.V, Therapeutic Role of Yoga in Type 2 Diabetes, Endocrinol Metab 2018;33:307-308
7. Kumar Pr, Malhotra N, Jeffcoate's Principles of Gynaecology, (8<sup>th</sup> edition) 2014;pp.386
8. Dennis TV, John OH. DHEA enhances effects of weight training on muscle mass and strength in elderly women and men. American Journal of Physiology- Endocrinology and Metabolism. 2006; 291(5):E1003-E1008. [Pub Med] [Google Scholar]
9. Dennis TV, John OH. DHEA enhances effects of weight training on muscle mass and strength in elderly women and men. American Journal of Physiology- Endocrinology and Metabolism. 2006; 291(5):E1003-E1008. [Pub Med] [Google Scholar]
10. Raju NK, Diagnostic and Therapeutic approach to Polycystic Ovary Syndrome to Ayurveda. Ayurvedaline.
11. Shastri Ambikadutta, Sushruta Samhita, with “Ayurveda Tattva Sandipika” Hindi Commentary, Chaukhamba Sanskrit Sansthan, Varanasi, 2010, Part 1, Sutra-Sthana, 15/32.
12. Shastri A, Sushruta Samhita, with “Ayurveda Tattva Sandipika” Hindi Commentary, Sutra Sthana, 15/48; Chaukhamba Sanskrit Sansthan, Varanasi;2010.pp.84