

PCOS - Anatomical and Psychosomatic Aspect: Management by Yoga

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Abstract

The polycystic ovarian syndrome is the most common problem encountered in the fertility age group of women and represents more than 80% of cases of infertility due to an ovulation. The physical symptoms have an underlying psychological cause. The present paper discusses the relevance of psychological factors and the etiology involved in PCOS along with the impact of different yoga asanas and meditation in relieving the associated symptoms to a major extent.

Keywords

Pcos, Psychosomatic Disorders, Yoga Asanas



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INTRODUCTION

Psychosomatic Disorder as the name itself implies are the disorders in which mental factors play a significant role in the development, expression or resolution of a physical illness. "Psycho" or "psyche" refers to the emotional or mind related aspects and "somatic" has to do with the organic or physical symptoms and signs observed.

Psychosomatic illness refers to a physical dysfunction that is primarily caused by some form of emotional or mental stress. Psychosomatic disorders may appear to be purely physical but they originate in emotions that are unconscious or dissociated from consciousness. There are hundreds of illnesses and disorders that are purely psychosomatic or have a psychosomatic component, yet it is quite astonishing that despite the prevalence of these disorders, the medical community remains in the dark about this.

Polycystic ovarian syndrome (PCOS) is a complex, multifaceted, heterogeneous disorder, affecting 4%–18% of reproductive-aged women.¹

PCOS is a psychosomatic disorder with unknown etiology characterised by abnormal menstruation pattern, obesity, primary or secondary infertility and hirsutism.

It can lead to complications during pregnancy along with chances of pregnancy loss. This necessitates the treatment of both psychic and somatic symptoms.

ANATOMY OF A NORMAL OVARY

A. Gross Anatomy- In the case of human ovaries, each one is whitish in color and located alongside the lateral wall of the uterus in a region called the ovarian fossa. The fossa usually lies beneath the external iliac artery and in front of the [ureter](#) and the internal iliac artery. It is about 4 cm x 3 cm x 2 cm in size.

B. Histology:

- 1.) Germinal epithelium of cubical cells.
- 2.) A thin layer of connective tissue called tunica albuginea.
- 3.) The cortex with ovarian follicles at various stages of development. Each follicle has one oocyte. One follicle matures every month and sheds an oocyte. After the liberation of oocyte graffian follicle is converted into corpus luteum.
- 4.) The medulla lies beneath the cortex and has rich vascular connective tissue containing vessels, nerves and lymphatics.²

WHAT IS PCOS-

In a normal menstrual cycle as the follicle matures, it releases an ovum per month. This process of release of ovum is called ovulation. In women with PCOS, ovulation is either irregular or may not happen at all due to deranged hormonal profile. In these cases the follicle matures to partial extent but does not release an ovum, such follicles later become fluid filled and come to lie on the surface of the ovary within the ovarian cortex as cysts.

ETIOLOGY OF PCOS

PCOS can result from stress, a disturbed Hypothalamic-Pituitary- Ovarian axis or any genetic causes. Stress being the most commonly observed factor resulting from the pattern of today's lifestyle. Insulin resistance is yet another common finding in the cases with PCOS. It has been observed that Insulin-mediated glucose disposal, mainly reflecting insulin action on skeletal muscle is decreased by 35-40% in women with PCOS as compared to weight comparable reproductively normal women³. Though this defect is independent but the condition is worsened by obesity. It has been shown by a study that the hepatic insulin resistance, generally characterised by increased postabsorptive glucose production

and reduced sensitivity to insulin mediated suppression of endogenous glucose production is present only in obese women with PCOS compared to women of control group with comparable body weight³. Thus Obesity adds the deleterious effects on PCOS and may account as an important factor in the pathogenesis of glucose tolerance.

STRESS AND OBESITY – THE GOVERNING FACTORS FOR PCOS

PCOS is further worsened by obesity, especially central obesity, since sex hormone binding globulin (SHBG) levels are reduced in this state due to hyperinsulinemia. Furthermore, PCOS is characterized by abnormalities in the gonadotropin releasing hormone (GnRH), pulse generator leading to preferential increase in LH release over follicle stimulating hormone (FSH)⁴.

As per a study 8 (9.9%) participants of PCOS did not have any signs of stress, 32 (39.5%) suffered from neurotic stress, 29 (35.8%) had high and 12 (14.8%) had extremely high levels of stress⁵. Such high involvement of stress factor has been recognised in relation to PCOS.

Ayurveda lays emphasis on the importance of healthy body along with mental and

spiritual wellness. AchaaryaSushruta in his definition for healthy individual mentioned physiological well being along with psychological balance⁶.

Modern medical science does not have a promising treatment for the disorder. It only provides a symptomatic treatment, which has many parallel side effects too. Weight loss and Clomiphene citrate (CC) are generally the first-line treatment before gonadotrophins are used. But, during gonadotrophin administration, there is a high risk of ovarian hyper-stimulation i.e., release of multiple ovum resulting in multiple pregnancies. These days ovarian drilling is used without much success as it ruptures the follicular cysts but the process of cyst formation is not stopped and they develop over and over again with time. Ayurveda always believes in the elimination of the root cause of the disease as is mediated by panchakarma procedures⁷.

Patanjali has described eight angas (parts) of yoga viz. Yam, Niyam, Aasan, Pranayaam, Pratyahaar, Dhyaan, Dhaarna, and Samadhi⁸. Out of these the above five relate to bahirang yoga and the last three relate to aabhyantaryoga. Whereas bahirang yoga maintains the physical and physiological balance, abhyantar yoga relieves mind and

soul. Thus Yoga fulfills the holistic definition of healthy body and mind as postulated by AacharyaSushruta.

BENEFITS OF YOGA IN PCOS

In today's pattern of living, stress is bound to be generated. To combat this stress and maintain a healthy and stress free living yoga and meditation are of great importance. For analysing the role of yoga in combating stress a study has been conducted in which cortisol, (the stress hormone) levels, are monitored over a short term TYP (Tantric Yoga Practice). It was identified that there occurs a decrease of cortisol production when assessed by Salivary cortisol concentration (SCC) as a measure of physiology of distress⁹. Yoga is the means by which one can refresh and rejuvenate oneself and overcome stress completely. Since stress plays an important role in exaggerating PCOS therefore yoga therapy is effective in PCOS. Yoga includes asanas, various relaxation exercises, pranayama and dhyan (meditation) are effective in releasing the stress. Yoga asanas help to stretch the pelvic area and tones the muscles by dissolving the extra fat. Pranayama as well as meditation is soothing for the mind.

Yoga helps to regulate the endocrine system of glands thereby balancing their hormones. Yoga aids in keeping ovary and uterus healthy. It is one solution to many problems like infertility, obesity and psychological symptoms. There are many yoga postures, which are good for PCOS. Some of the important Yoga postures can be listed as-

1.) Mayurasana, (Peacock position)- It can be practiced by taking support of the earth with both the hands and placing the two elbows by the side of navel, raising up the body high from the earth¹⁰. Mayuraasana rapidly destroys all diseases of the glands, abdomen, etc.and balances the vitiated vata and pitta doshas and diseases occurring from them .Stimulating the jatharagni (the secretion of gastric juice and enzymes) which completely digests the food¹¹.

2.) Surya Namaskaar (Sun Salutation): The twelve set of Yoga poses in suryanamaskar enhances the flexibility of the body as well as it effectively controls hormonal imbalance. Surya Namaskar is also helpful in controlling the weight. It tones muscles and decreases the extra fat deposited within the skin. Sun Salutation helps in detoxicating and releasing the stress from the top to the toe of the body.

3.) Bhujang-asana: This asana exerts a lot of pressure on the stomach and helps to stimulate ovarian function. It also decreases the excess deposition of fat over the belly. It also has multifaceted advantages like improvement in digestion, stress buster, good in increasing the lung capacity.

4.) Nauka-asana: Naukasana is good in case of PCOS as this posture puts excess pressure on the abdominal region. Stimulates the ovarian secretion of harmones which inturn helps in regulating menstrual cycle and which in turn will cure PCOS condition in a natural way.

5.) Nadisodhan Pranayama: Nadisodhan Pranayama is also known as Anulom-Vilom, which soothes and refreshes mind, lowering down stress in a natural way, thereby curing the PCOS.

6.) Bhramri Pranayama: The only pranayama which controls all the negativities such as stress, anxiety, depression, mania, tension etc. So, it is very helpful in controlling the mood swings.

7.) Meditation helps in stabilizing the mind. It acts as mood elevator and has a soothing and calming effect. Meditation brings coordination between body, mind and emotions. It relieves the symptoms of PCOS in a natural way.

CONCLUSION

The above article briefly emphasises the basic conditions that generate PCOS and the psyche involved in its occurrence which generally is overlooked. PCOS can be improved to a great extent by practising the described asanas and meditation. The asanas have a great impact on the physical and anatomical features that are responsible for the development of polycystic ovarian condition while meditation helps relieve the stressful conditions which are prevalent in modern day lifestyle pattern.

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