



Effect of *Baddha Konasana* on Polycystic Ovarian Syndrome: A Review

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ABSTRACT:

Siddha system is one of the traditional systems of medicine. *Kayakarpam* (rejuvenation), *Siddhar Yogam* therapy, *Pranayamam*, *Varmam* and *Muppu* are the specialties of the Siddha medicine. In Siddha System of Medicine, Yoga forms an important part. Many Siddhars have dealt with Yoga. The word Yoga means 'to unite'. Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and science of healthy living [1]. Polycystic ovarian syndrome (PCOS) is a disorder affecting females of reproductive age, characterized by amenorrhea, obesity, and hirsutism, and is associated with enlarged polycystic ovaries [2]. The major complications associated with PCOS are infertility, diabetes, cardiovascular diseases, dyslipidemia, hypertension, glucose intolerance, and metabolic syndrome [3]. 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 [4].

Key words: Siddha, Yoga, PCOD, Asana, *Baddha konasana*.

INTRODUCTION:

Siddha system of medicine is one of the traditional systems of medicine which treats not only the body also the mind. The word Siddha has its origin in the Tamil word Siddhi which means "an object to be attained" or "perfection" or "heavenly bliss". *Kayakarpam* (rejuvenation), *Siddhar Yogam* therapy, *Pranayamam*, *Varmam* (pressure manipulation technique) and *Muppu* (the universal salt) are the specialties of the Siddha system of medicine. In Siddha System of Medicine, Yoga forms an important part.

Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and science of healthy living. The word Yoga means 'to unite'. As per Yogic scriptures the practice of Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man & Nature [1].

Polycystic ovarian syndrome (PCOS) is a disorder affecting females of reproductive age, characterized by amenorrhea, obesity, and hirsutism, and is associated with enlarged polycystic ovaries. The signs and symptoms include menstrual irregularity, obesity, and excessive hair growth on the face and chest. Psychological disorder, including depression, anxiety, bipolar disorders, stress, sleep apnea, can worsen the Quality of Life. The major complications associated with PCOS are infertility, diabetes, cardiovascular diseases, dyslipidemia, hypertension, glucose intolerance, and metabolic syndrome [5]. In India, the prevalence of PCOS is highly variable, ranging from 2.2% to 26% [6].

Yoga has a wholesome effect on both body and mind. Asanas or physical postures of the body act at various anatomical levels and help prevent or minimize the risk of various metabolic disorders [7]. 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 [4].

POLYCYSTIC OVARIAN SYNDROME:

Polycystic ovary syndrome (PCOS) affects up to 10% of women of reproductive age. It is a heterogeneous disorder, often associated with obesity, for which the primary cause remains uncertain. Genetic factors probably play a role, since PCOS often affects several family members. The severity and clinical features of PCOS vary markedly between individual patients but diagnosis is usually made during the investigation of hirsutism or amenorrhoea/oligomenorrhoea. Infertility may also be present. Diagnosis of PCOS requires the presence of two of the following three features:

- ☞ Menstrual irregularity
- ☞ Clinical or biochemical androgen excess
- ☞ Multiple cysts in the ovaries [8].

It is also important to rule out other endocrine disorders that can mimic PCOS, such as congenital adrenal hyperplasia, Cushing syndrome, and hyperprolactinemia [9].

The etiology of this disorder is unknown. Some cases appear to result from a genetic predisposition, whereas others seem to result from obesity or other causes of LH excess. The disorder is characterized by chronic anovulation or extended periods of infrequent ovulation (oligo-ovulation). It is a syndrome primarily defined by excess androgen ^[9].

In many women with PCOS, obesity seems to be the common factor (seen in 50% of patients), and the acquisition of body fat coincides with the onset of PCOS. In fact, Stein and Leventhal first described PCOS as women with hirsutism, irregular cycles, and obesity. (PCOS was originally called Stein-Leventhal syndrome.) PCOS is related to obesity by the following mechanism: LH stimulates the theca-lutein cells to increase androstenedione production. Androstenedione undergoes aromatization to estrone within adipocytes. Although estrone is a weak estrogen, it has a positive-feedback action or stimulating effect on the pituitary secretion of LH. LH secretion is, therefore, stimulated by increased estrogen. With increasing obesity comes increased conversion of androstenedione to estrone. With the increased rise in androstenedione, there is coincident increased testosterone production, which causes acne and hirsutism ^[9].

Therefore, PCOS can be viewed as one of excess androgen and excess estrogen. The unopposed long-term elevated estrogen levels that characterize PCOS increases the risk of abnormal uterine bleeding, endometrial hyperplasia, and, in some cases, the development of endometrial carcinoma ^[9].

The typical woman with PCOS has many of the signs of metabolic syndrome (Syndrome X). Approximately 40% of patients with PCOS have impaired glucose tolerance, and 8% have overt type 2 diabetes mellitus. These patients should be screened for diabetes. Acanthosis nigricans has also been found in a significant percentage of these patients ^[9].

MATERIALS AND METHODS:

***Baddha konasana* (Bound angle pose):**

Classification: Symmetrical seated pose.

Steps ^[10]:

- ❖ Sit straight with, out stretched legs.
- ❖ Bend the knees and bring the soles of the feet together, keeping the heels as close to the perineum as possible.
- ❖ Fully relax the inner thigh muscles.
- ❖ Clasp the feet with both hands.
- ❖ Gently move the knees up and then down towards the floor, but do not use any force.
- ❖ Keep the soles of the feet together.

Breathing ^[10]:

Normal breathing, unrelated to the practice.

Awareness ^[10]:

On the hip joint, movement and relaxation.

Contra-indications ^[10]:

People with sciatica and sacral conditions should avoid this asana.

Benefits:

This *Asana* prepares the legs for mastery of *padmasana* and other meditative asanas. The inner thigh muscles hold a lot of tension which is relieved by these asanas. They also remove tiredness due to long hours of standing and walking. Benefits women by relieving abdominal pain often experienced during menstruation ^[10].

Baddha konasana (Bound angle pose) is a seated hip opener and groin stretch. It can relieve pelvic cramping, and this version of the pose also improves your ankle flexibility and awareness, which will come in handy in balancing poses ^[11].

DISCUSSION:

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 ^[12]. 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^[5]. Yoga has proven effects in reducing and managing the symptoms of polycystic ovarian syndrome more effectively. Because yoga helps in weight loss, relaxes body and mind, relieves stress, regulates blood circulation, boosts metabolism of the body^[13].

While doing *Baddha konasana*, hip flexors-particularly iliopsoas-engage to maintain hip flexion. Quadriceps, along with thigh adductors, strongly stretch. The hamstrings initially engage to flex the knee. *Baddha konasana* is a seated hip opener and groin stretch. It can relieve pelvic cramping^[11].

CONCLUSION:

Yoga helps in weight loss, relaxes body and mind, relieves stress, regulates blood circulation, boosts metabolism of the body. *Baddha konasana* works on the muscle of the groin area, inner thighs, and organs in the abdominal cavity. While doing *Baddha konasana*, hip flexors-particularly iliopsoas-engage to maintain hip flexion. Quadriceps, along with thigh adductors, strongly stretch. By these actions it opens up the pelvic region and promotes relaxation in the system. Hence *baddha konasana* has proven effects in managing the symptoms of PCOD and preventing its complications.

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