



Review Article

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A REVIEW ON KAZHARCHI CHOORANAM: A SIDDHA HERBAL MEDICINE FOR THE MANAGEMENT OF SOOTHAGA VAAYU (PCOS)

M. Kowsalya ^{1*}, T. Anu Priya Varthini ¹, A.M. Amala Hazel ², M. Meenakshi Sundaram ³

¹ PG Scholar, Department of Kuzhanthai Maruthvam, National Institute of Siddha, Affiliated to Tamil Nadu Dr. M.G.R Medical University, Chennai, India

² Professor and Guide, Department of Kuzhanthai Maruthvam, National Institute of Siddha, Affiliated to Tamil Nadu Dr. M.G.R Medical University, Chennai, India

³ Professor and HOD, Department of Kuzhanthai Maruthvam, National Institute of Siddha, Affiliated to Tamil Nadu Dr. M.G.R Medical University, Chennai, India

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***Corresponding author**

E-mail: kowsalyamurugadoss15597@gmail.com

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ABSTRACT

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age, characterized by hormonal imbalances, irregular menstrual cycles, hyperandrogenism, and ovarian abnormalities. The Siddha system of medicine provides a holistic approach to managing PCOS by addressing imbalances in the body's four primary components: physical, psychological, moral, and intellectual. One of the key treatments mentioned in Siddha literature for conditions like PCOS (referred to as "Soothaga Vaayu") is Kazharchi Chooranam, a herbal formulation made from *Caesalpinia crista* (Kazharchikkai) and *Piper nigrum* (Milagu). This review aims to evaluate the potential therapeutic effects of Kazharchi Chooranam in managing PCOS symptoms. The two main ingredients, Kazharchikkai and Milagu, possess pharmacological properties such as antiandrogenic, anti-inflammatory, antidiabetic, and immunomodulatory effects, which may help alleviate the hormonal and metabolic disturbances associated with PCOS. Scientific studies indicate that *Caesalpinia crista* may help to regulate reproductive hormones and improve menstrual irregularities, while *Piper nigrum* exhibits antioxidant and anti-inflammatory properties that support overall health. This formulation, being easily available and safe, could offer a promising alternative treatment for women suffering from PCOS. Further clinical and scientific research is recommended to validate its efficacy and explore its potential as a therapeutic option for PCOS management.

Keywords: Polycystic Ovarian Syndrome, Soothaga Vaayu, Kazharchi Chooranam.

INTRODUCTION

Siddha system of medicine is the ancient and unique medical system among all the systems of medicine in the world. The Siddha system describes 96 main constituents of human beings. These are manifestations of 4 basic components of an individual such as physical, psychological, moral, and intellectual. Among the 96 principles, mukkutram (three humours) is very important. It must be in equilibrium for the body to be healthy. In our classical Siddha literature Aathmaratchamirtham Ennum Vaithiya Saarasangiragam quoted about Soothaga vaayu. The clinical features of Soothaga vaayu may be correlated with PCOS in modern aspects.

A hormonal condition affecting women of reproductive age is known as polycystic ovarian syndrome (PCOS). Around the time of the first period throughout adolescence, PCOS causes health issues in females. One of the main causes of female infertility worldwide is PCOS, a multisystem disorder. Polycystic ovary syndrome (PCOS) is the most common endocrine-metabolic disorder in reproductive-aged women ¹. The hallmarks of PCOS include irregular menstrual cycles and signs of hyperandrogenism².

Polycystic ovary syndrome (PCOS) affects an estimated 8–13% of reproductive-aged women. Upto 70% of affected women remain undiagnosed worldwide ³. The condition can present as either morphological (such as polycystic ovaries) or primarily

biochemical (such as hyperandrogenemia). Hyperandrogenism, a key feature of PCOS, can interfere with follicular development, lead to the formation of ovarian microcysts, cause anovulation, and result in irregular menstrual cycles ⁴. The most common symptoms of PCOS include Signs and symptoms such as Irregular menses (Oligomenorrhoea), Anxiety, Acne, Mood swings, Anovulation, Baldness / Hair thinning, Infertility, Amenorrhoea, Depression, Hyperpigmentation, Irritation, Excessive facial and body hair, enlarged ovaries with cyst ⁵.

The classical concept of Siddha defines the ways to maintain 'Vali', 'Azhai,' and 'Iyam' in a balanced state to prevent diseases. Siddha literature mentions specific drugs that are given for a definite duration along with specific dietetic regimens for PCOS women.

In this way, Kazharchi chooranam is a time-tested herbal drug which is very safe and easily available. This review practice may be adopted for scientific validation in future for further clinical and research purposes.

Table 1: Ingredients of Kazharchi chooranam

Name	Botanical name	Parts used	Quantity
Kazharchikkai	<i>Caesalpinia crista</i>	Seeds	Equal quantity of each drug
Milagu	<i>Piper nigrum</i>	Fruits	

Table 2: Process of Purification

Name	Purification process
Kazharchikkai	Removed the outer seeds, washed it in hot water and then dried
Milagu	Soaked it in sour buttermilk for 3 hours and then dried

Method of preparation: After proper purification, each drug should be finely powdered and mixed and then stored it in airtight container.

Dose: 5-10 gm

Adjuvant: Hot water.

Important Therapeutic Usage: Anda vaayu (Hydrocele), Soothaga vaayu (PCOS), Yanaikkal (Filariasis)

Reference: Siddha Formulary of India (Part-1).



Figure 1: Caesalpinia bonducella - Kazharchikkai

Table 3: Scientific classification

Kingdom	Plantae
Phylum	Magnoliophyta
Class	Angiospermae
Orders	Fabales
Family	Caesalpinaceae
Genus	caesalpinia

Parts used: Leaves, flowers, fruit, root, bark, seeds and seed oil were used medicinally.

Description: *Caesalpinia bonducella*, also called *Caesalpinia crista*, is a prickly shrub that naturally grows in the warmer regions of India and other tropical countries. It is a vigorous climber, resembling a liana, with spiny branches and greyish, downy twigs. The plant is also characterized by hooked, robust yellow thorns ⁶.

Chemical constituents: Phytochemical screening of *Caesalpinia bonducella* seeds has shown the presence of different bioactive compounds like alkaloids, sterols, oils, saponins, flavonoids, phenols, glycosides, tannins, and resins. The major tocopherol identified in seed kernels was α -tocopherol followed by γ - and δ -tocopherol. The main sterols observed were β -sitosterol, campesterol, and stigmasterol. Seed kernel oil contains a high level of linoleic acid ⁶.

Pharmacological Activities

- Antiestrogenic activity ^{6,7,8}
- Antiandrogenic activity ⁶
- Antidiabetic activity ^{6,7,8}
- Antiproliferative activity ^{6,7,8}

Scientific review

- Vetriselvi V *et.al* ⁹ in their study suggests that compounds from the aqueous extract of 4:1 ratio of Kalarchi Chooranam have potential binding affinities against PCOS.
- Anagha Shende *et.al* ¹⁰ in their study mentions that Treatment with *Caesalpinia crista* in high dose, i.e., 500 mg/kg, significantly improved the reproductive abnormalities (ovulation and menstrual irregularities) and histopathological changes associated with PCOS. It also restored reproductive hormone levels (testosterone, FSH, and LH), which are

elevated in PCOS, and normalized the LH/FSH ratio, which is deranged in PCOS.

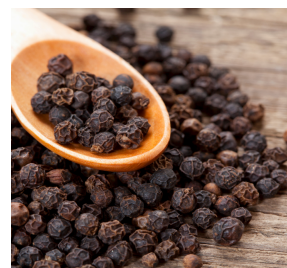


Figure 2: Piper nigrum - Milagu

Table 4: Scientific classification

Kingdom	Plantae
Class	Equisetopsida
Sub class	Magnoliidae
Order	Piperales
Family	Piperaceae
Genus	<i>Piper</i>
Species	<i>nigrum</i>

Parts used: Seeds

Description: Black pepper is a tropical climbing vine that can reach heights of 4-9 meters, often relying on other trees for support. Its leaves are simple, elliptical, 10-15 cm long and 5-9 cm wide, with a thick, leathery texture and a smooth, glabrous surface. The fruit, commonly known as peppercorn, is a small drupe, around 8 mm in diameter, and typically harvested before it ripens. The plant produces hermaphroditic, white flowers that grow in clusters of 20 to 30 on pendulous spikes. The dried, immature peppercorns from cultivated plants are used as a spice. The mature fruit has a rounded shape, measures about 8 mm across, and is brown with a wrinkled, mesh-like surface. It has a distinct, spicy flavor and aroma ¹¹.

Chemical constituents: The pepper is rich in vitamins A and K in addition to dietary fiber, calcium, magnesium, potassium, manganese, phosphorous, and β -carotene. Some other products from black pepper are ground pepper, oleoresin, and pepper. Black pepper, with piperine as an active ingredient, contains volatile oil, oleoresins, and alkaloids. Major alkaloids present in black pepper are piperine, chavicine, piperidine, and piperetine. The terpenes, steroids, lignans, flavones, and alkamides are other primary constituents ¹².

Pharmacological activities: *Piper nigrum* exhibits a wide range of pharmacological effects, including antihypertensive, anti-platelet, antioxidant, antitumor, anti-asthmatic, antipyretic, analgesic, anti-inflammatory, anti-diarrheal, antispasmodic, anxiolytic, antidepressant, hepatoprotective, immunomodulatory, antibacterial, antifungal, anti-thyroid, anti-apoptotic, anti-metastatic, antimutagenic, anti-spermatogenic, insecticidal, and larvicidal properties, among others ¹¹.

Scientific review

- Athar Rasekh Jahromi *et.al* ¹³ in their study mentions that increased pregnancy rates are finally brought on by the favorable effects of *Nigella sativa* and black pepper on the size of dominant follicle and endometrial thickness.
- Athar Rasekh Jahromi *et.al* ¹⁴ in their study mentions that black pepper (*Piper nigrum*) has been consumed since ancient times for its anti-inflammatory and antifatulent properties. The essential oil of pepper is composed of compounds such as piperine, an amine alkaloid, which is responsible for the herb's pungent character.

DISCUSSION

Polycystic Ovary Syndrome (PCOS) is a challenging condition affecting many women today. It is a complex disorder characterized by a combination of symptoms and signs, such as excess androgen levels (hyperandrogenism and/or hirsutism) and ovarian dysfunction (polycystic ovarian morphology (PCOM) and/or oligo-ovulation)¹⁵. Women with PCOS typically show elevated levels of luteinizing hormone (LH) and gonadotropin-releasing hormone (GnRH), while follicle-stimulating hormone (FSH) remains unchanged or low. The increase in GnRH stimulates the ovarian thecal cells to produce more androgens, leading to follicular arrest, which can be corrected by boosting FSH levels, either naturally or through external supplementation. Elevated androgen levels are found in 80-90% of women with oligomenorrhea¹⁶. Hyperandrogenism, a key feature of PCOS, disrupts follicular development, causes ovarian microcysts, prevents ovulation, and leads to irregular menstrual cycles. As follicular development is impaired, there is a reduction in progesterone and estrogen levels due to the regression of the corpus luteum. This, in turn, removes the negative feedback suppression, allowing for a gradual increase in FSH and LH, which triggers the growth of ovarian follicles¹⁶. The Siddha system of medicine, known for promoting overall health, offers a potential solution for women with PCOS. The ingredients of Kazharchi Chooranam have various pharmacological properties that may help manage PCOS, making it a beneficial remedy for women in their reproductive years to improve both physical and mental health.

CONCLUSION

Kazharchi chooranam, a siddha herbal formulation which is easily available drug is used in the treatment of PCOS. Here the Author explore the remarkable properties and benefits of Kazharchi choornam, as it continues to provide relief and support for women's health. This review may act as a key role support for Soothaga vaayu (PCOS) women. This review may be adopted for scientific validation in future for further clinical and research purposes. This will pave a way for PCOS women and provide nourishment.

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