



IJPPR

INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals

ISSN 2349-7203



Human Journals

Review Article

July 2022 Vol.:24, Issue:4

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Latakaranja - The Supreme Choice in PCOS



IJPPR
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals



ISSN 2349-7203

¹Abhirami C M, ²Arun Chougale, ³Syam R J, ⁴Jojan J Jerone, ⁵Sreelakshmi S

¹PG Scholar, Department of Rasayana & Vajeekarana, KAHER's Shri BMK Ayurveda Mahavidyalaya Shahapur, Belagavi, Karnataka, India ²Consultant, Specialty Ayurveda Endocrinology, KLE Ayurveda hospital, Shahapur, Belagavi, Karnataka, India. ³ PG Scholar, Department of Rasayana & Vajeekarana, KAHER's Shri BMK Ayurveda Mahavidyalaya Shahapur, Belagavi, Karnataka, India ⁴ PG Scholar, Department of Swasthavritta, KAHER's Shri BMK Ayurveda Mahavidyalaya Shahapur, Belagavi, Karnataka, India ⁵ PG Scholar, Department of Rasayana & Vajeekarana, KAHER's Shri BMK Ayurveda Mahavidyalaya Shahapur, Belagavi, Karnataka, India

Submitted: 21 June 2022
Accepted: 26 June 2022
Published: 30 July 2022

Keywords: PCOS, *Caesalpinia crista*, *Ayurveda*, *Latakaranja*

ABSTRACT

PCOS is a multi-factorial disorder commonly seen in women of reproductive age group. A faulty lifestyle and improper food habits are the main cause of disease. The condition involves the formation of multiple cysts in the ovary resulting in menstrual abnormalities and other gynecological problems. In Ayurveda, the disease is not mentioned directly but the symptoms can be correlated with certain *yonivyapath* associated with *artavavikaras*. *Latakaranaja* (*Caesalpinia Crista*) with all its properties will act on all stages of the pathogenesis of PCOS. The pharmacological action of the drug has also proved to be effective in relieving comorbidities like hormonal imbalance, obesity, insulin resistance, etc. Hence, *Latakaranja* (*Caesalpinia crista/bonducella*) can be considered the best choice of drug for PCOS.



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INTRODUCTION

Polycystic ovarian syndrome, also known as Polycystic ovarian disease or PCOD is one of the most common endocrine disorders and is said to be the fastest growing health concern of women in the reproductive phase. According to reports, the illness affects between 4% and 7% of women of their reproductive age¹. PCOS is linked to significant reproductive morbidity during the reproductive years of women, including infertility, irregular bleeding, pregnancy loss, and pregnancy difficulties². Because of its high frequency and potential reproductive, metabolic, and cardiovascular risk factors³, this illness is gaining a lot of research. It is a disorder in which the ovary fails to perform its normal function due to multiple cysts. It was discovered by Stein and Leventhal in 1935, hence known as 'Stein Leventhal Syndrome' & insulin resistance syndrome⁴.

Clinical Features:

It is mainly characterized by a combination of hyperandrogenism, anovulation, and polycystic ovaries, commonly accompanied by insulin resistance and obesity⁵. Clinical features of PCOS may vary from mild menstrual abnormalities to severe metabolic disorders and also infertility. Symptoms include; irregular scanty menses, menorrhagia, obesity, dark patches in the skin, loss of hair, facial hair, acne etc⁶.

MATERIALS AND METHODS

Thorough ayurvedic literature was done on classical textbooks of Ayurveda. Several peer-reviewed articles, textbooks, monographs, and well-known search engines were thoroughly examined.

PCOS treatment strategy should not only reduce symptoms but also prevent long-term consequences. Treatments are mainly aimed at Correction of hormonal imbalance, Management of obesity & dyslipidemia, Treatment for Insulin resistance, and Cosmetological issues⁷. To lower androgen levels and alleviate symptoms while providing endometrial protection, combined oral contraceptives and antiandrogens therapies are also given⁸.

RESULTS

Ayurveda has not directly described PCOS, but symptoms can be correlated with certain *yonivyapaths* having features of *artavadushiti*⁹. *Agni* has given prime importance to *Ayurveda* in maintaining body homeostasis, body functioning, body metabolism, and healthy body

functioning. Maintenance of *agni* & quality of *rasa dhatu* plays a key role in the management of many diseases, especially metabolic disorders. Hence, maintenance of *agni* crucial role in the pathogenesis of this disease¹⁰.

Pathogenesis of PCOS according to Ayurveda:

Regular intake of *guru madhurasheetapicchilaahara* & viharas like *ratrijagarana*, *atichinta*, and *akala bhojana* may cause aggravation of *Kapha* and *Vata* dosha respectively. These *mithyaahara viharas* may also develop *agnimandhya* and in turn, leads to the formation of *ama*. The *ama* thus formed along with vitiated *doshas* will vitiate *rasa dhatu*. when *rasa dhatu* gets vitiated, it will simultaneously vitiate *artava* which is known as *upadhatu* of *rasa*. Vitiated *ama* may also cause *srotavarodha* in *artavavahasrotas* leading to *anartava* or *alpartava*. *Agnimandhya* leading to vitiation of *pitta* will also contribute to *artavakshaya*.

Following this, the vitiated *rasadhatu* will further vitiate *medo dhatu* having similar properties of *kapha* & *rasa* by deranging *medodhatwagni* and will result in *medovruddhi* and inturn *medovikaras* like *granthi*, *prameha*, *sthaulya* etc. Altogether it can be considered a *tridoshaja* and *santarpanajanyavikara*.

Chikitsa Yojana:

Since PCOD is a disorder involving *tridoshas* along with *agnimandhya* causing vitiation of *rasa dhatu*, leading to *artavadushti* and producing symptoms such as *alpartava* or *anartava* associated with *medovikaras*, Drugs having *deepanapachana*, *kaphavatashamaka*, *srotoshodhana* & *vatanuloman*, etc. should be preferred for the management of the disease.

Latakaranja as Drug of Choice:

Latakaranja¹¹

➤ **Botanical name:** *Caesalpinia crista* Linn

Syn: *Caesalpinia bonducella* Fleming

➤ **English name:** Bonduc nut, Fevernut, Nicker tree

➤ **Family:** Fabaceae

➤ **Kula:** Simbikula

➤ **Vernacular Names:**

- Hindi: Kantakaranja
- Malayalam: Kalan chikkuru
- Tamil: Kazharshikkay
- Kannada: Gajjagakai
- Telugu: Gachachakaya

➤ **Synonyms:** *Kuberaksha, latakaranja, putikaranja, kantakikaranja, vitapakaranja, dusparsha, vajraveeraka, kantaphala*

➤ **Main features:**

A scandent climbing shrub or woody vine without tendrils. The shrub is covered with spines and has a bad odor. Fruits are also covered with spiny structures. Seeds are rounded or ovoid, large, hairy, grey and shiny, extremely hard, and look like the eye of Kubera.

➤ **Parts used:** Moolatwak, beeja, Patra

➤ **Rasa Panchaka:**

Rasa: KatuTikta Kashaya

Guna: Laghu, Ruksha

Virya: Ushna

Vipaka: Katu

➤ **Karma**

- *Doshagna karma: Kaphavata Shamaka*
- *Roghagna karma: Vedanasthapana, Amavatahara, Yakrututtejaka, Kushtagna, Swasahara, Raktasthambaka, Shothagna, Arshogna, Kaphagna, jwarahara. Prameha hara, udavartahara,*

➤ **Matra:**

Beejamajjachurna: 5-20gm

Mulachurna: 10-15 gm

Patrswarasa: 10-20ml

Pharmacological action¹²: Anti-oxidant, Anti-inflammatory, Analgesic, Antibacterial, Antiviral, Anti Diabetic, Hypolipidemic, Cardioprotective.

DISCUSSION

Lata Karanja with all its properties will act as *kaphavata shamaka*. *Katutikta* rasa will remove *srotavarodha* which in turn helps in *agnideepana* and *uttarothara dhatu poshana*. Improved state of *Agni* and *dhatu*s will also cause the enhancement of *artava* being *upadhatu* of *rasa dhatu*. The properties of *latakaranja* will also cause *medovilayana* and help to relieve *medojanyavikaras*. It can directly act upon *kashtarthavaas* which is mentioned under *shulagnagana* by acharyas. Vaishnavi et.al reported successful management of PCOS cases with *kuberakshadivati*. Nangare et.al reported successful management of PCOS with *latakaranja vati*¹³.

The anti-diabetic action of *Caesalpinia*¹⁴ will help to relieve insulin resistance while hypolipidemic action¹⁵ may act upon high cholesterol levels and obesity conditions. The drug also possesses estrogen activity¹⁶ hence helping to maintain hormonal balance. Anti-spasmodic and analgesic action of the drug may directly act upon dysmenorrhea conditions. V. Kandaswamy et.al.2021, concluded that phytochemicals in *C. bonducella* are very much effective in several ailments related to PCOS¹⁶. Another research study by A. Thirumurugan et.al proved the effect of *Caesalpinia bonduc* aqueous seed extracts in PCOS-induced hyperlipidemia¹⁷. Meera Balasubramaniam et.al studied the effect of ethanolic extract of *Caesalpinia* seeds in mifepristone-induced PCOS¹⁸.

The seeds of *Caesalpinia crista* resemble that of cysts in the ovary (Doctrine of Signature). This can also be considered as *lokapurushasamyavada* in Ayurveda which indicates the drug can be effective in polycystic condition.

In a study to assess the effect of Ethanolic Seed Extracts of *Caesalpinia bonduella* (ESECB) on altered hormonal levels in mifepristone-induced polycystic ovarian syndrome (PCOS)

female rats, 400 mg/kg b.w of ESECB drug treatment was found to have a significant effect in correcting this hormonal imbalance¹⁹. In Mifepristone-induced polycystic ovarian syndrome (PCOS) female rats, the effects of ethanolic seed extract of *Caesalpinia bonducella* (ESECB) on in vivo enzymatic and non-enzymatic antioxidant levels, as well as histological changes, were investigated. The antioxidant enzymes catalase, superoxide dismutase, glutathione peroxidase, glutathione – S – transferase, and glutathione reductase were shown to be reduced in rats treated with Mifepristone, but enhanced in the ESECB-treated groups. In these groups, the altered levels of non-enzymatic antioxidants were likewise restored to normal. The ESECB-treated rats recovered normal ovarian architectural physiology, which had been altered due to the PCOS disease, according to histopathology²⁰.

CONCLUSION

PCOS is a complex disorder with multiple symptoms. According to Ayurveda, the pathogenesis of disease includes *agnimandhya* and *ama* leading to *srotavarodha* and thereby vitiation of *kaphapradhanatridosha*, *rasa*, and *medodushti*. Lakshanas include mainly *artavadoshas* such as *alpaartava*, and *nashtartava* associated with *granthivikaras*. The treatment principle mainly focuses on *ama pachanaagnideepana*, *srotoshodhana*, *dosha*, and *dhatu samyakara*. *Latakaranja* is a drug that single-handedly acts at all levels of pathogenesis and thus can be considered a supreme choice in PCOS.

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