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EFFECT OF AYURVEDIC MEDICINES IN POLY CYSTIC OVARIAN DISEASE (PCOD): A SINGLE CASE STUDY

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ABSTRACT

Background: Poly Cystic Ovarian Disease (PCOD) is the most common endocrine disorder affecting approximately 5-10% of the reproductive age group in women. The disorder may result in chronic ovulation dysfunction resulting infertility, hyperlipidemia, obesity, acne and hirsutism etc. The exact cause of PCOD is unknown but it is linked to insulin resistance and hyperandrogenism. In Ayurveda PCOD is clinically resembled with *Pushpaghni Jataharini* mentioned in *Kashyapa Samhita*. In this disease all three *Dosas* are derranged and *Artavavaha Srotas* (channels of transporting menstrual blood), *Udakavaha Srotas* (channels of transporting tissue fluid) and *Medovaha Srotas* (channels of transporting adipose tissue or fat) are mostly affected. So, in the present study *Artavajanan* (menstrual promoting), *Medohara* (hypolipidemic) *and Granthihara* (cyst reducing) properties of drugs are selected. **Clinical Presentation and Diagnosis:** A 18 years old unmarried girl, already diagnosed with PCOD visited to OPD of CARI, Kolkata with the complaints of

irregular menstruation with other associated signs and symptoms of weight gain, lethargy, hirsutism, acne, mild pain and discomfort in lower abdomen etc.. The duration of menstruation was of 1-2 days with irregular interval of 40 to 50 days. Menstruation was scanty and associated with mild lower abdominal pain. Such complaints were persisted since two years before visiting in this hospital. USG was also suggestive to diagnose Polycystic Ovarian Disease (PCOD). **Intervention and Outcome:** The patient was advised for USG test by Allopathic Doctor and after testing of USG report patient attended our hospital for Ayurvedic treatment but previously she had not received any Allopathic medicines. The Patient was advised to take *Kanchanar Guggulu* (1gm) 3 times daily after breakfast, lunch and dinner, *Rajahpravartani Vati* (250 mg) 2 times daily after lunch and dinner, and *Nisaamlaki Churna* (3 gm.) 2 times daily after lunch and dinner for the duration of 112 days (8^{th} follow up). **Results:** The satisfactory result was observed in menstrual bleeding after 42 days onwards. The sign and symptoms were gradually reduced and USG report showed the complete recovery of ovarian cysts after completion of 112 days (8^{th} follow up) treatment. **Conclusion:** Results suggest that the Ayurvedic interventions may be reduced the signs and symptoms and normalize the ovaries of the patient. Further clinical trials can be conducted to prove the efficacy of the drugs. The result revealed that PCOD can be cured by Ayurvedic interventions.

KEYWORDS: PCOD, *Pushpaghni Jataharini, Kanchnar Guggulu, Rajahpravartani Vati Nisaamlaki churna*.

INTRODUCTION

Polycystic ovary Disease (PCOD) is one of the most common endocrine disorders of reproductive aged women around the world where as relatively high prevalence in Indian subcontinent. Irregular or absence of menstrual cycles are the most common clinical finding and which are usually identified during history taking of PCOD.[1] Sign and symptoms of PCOD include abnormal menstrual pattern, infrequent or no ovulation, multiple immature follicles, increased levels of male hormones, hirsutism, acne, oily skin, dandruff, hyperpigmentation of skin specially on neck, groin, underarms, chronic pelvic pain, increased body weight or obesity, diabetes, lipid abnormalities and high blood pressure etc.[2] It is a prevalent endocrine disorders of reproductive age affecting 5% to 10% of women worldwide.[3] and prevalence in India ranges from 3.7 to 22.5 percent depending on the population studied.[4] Although the pathophysiology related to PCOD remains unclear,

complex interactions between genetic, behavioral, and environmental factors play important roles in the development of PCOD.[5] Incidence of this disease is increasing now a days because of sedentary lifestyles, pollution, excessive intake of junk food etc. PCOD is diagnosed by a combination of clinical signs and symptoms of hyperandrogenism, menstrual irregularities, and sonographic evidence of polycystic ovaries.[6] Assessment of ovarian morphology by the use of ultrasound has become a substitute for histologic examination in diagnosing PCOD.[7] In modern medicine there is no effective comprehensive treatment for PCOD but Ayurvedic medicines are attractive therapeutic alternatives due to their efficacy and without or lesser ADRs.

In *Ayurveda* majority of gynecological disorders are explained under the *Yonivyapadas Adhy*ay (chapter of genital disorders) but there is no direct reference of PCOD but its signs and symptoms can be correlated with *Pushpaghni Jataharini* mentioned in *Kashyapa Samhita*. In this disease all three *Dosas* are derranged and *Artavavhaha* (channels of transporting menstrual blood), *Udakavaha* (channels of transporting tissue fluid) and *Medovaha Srotas* (channels of transporting adipose tissue or fat) are mostly affected.

Hence proper management of *Agnideepan* (carminative), *Vatanuloman* (normalising of aggravated *Vata Dosa*), *Medonasak* (hypolipidemic) and *Granthihara* (cyst reducing) properties drugs are selected in this study.

Patient information

A 18 years old unmarried girl, already diagnosed with PCOD visited to OPD of CARI, Kolkata with the complaints of irregular and scanty menstruation with other associated signs and symptoms of weight gain, lethargy, hirsutism, acne, mild pain and discomfort in lower abdomen etc. The patient was suffering from such complaints since two years. She was advised for USG test by Allopathic Doctor. After done of USG report patient had come at our hospital for Ayurvedic treatment but she had not received any allopathic medicines. Her parents were interested and faithful in Ayurvedic medication.

Clinical Findings

On general examination, her blood pressure was 110/64 mm.of Hg., Pulse rate was 70/minutes and body weight was 62 kg. On systemic examinations, only tenderness was found in lower abdomen. As per her menstrual history, the duration of menstruation was of 1-

2 days with irregular interval of 40 to 50 days. Amount of bleeding was scanty and associated with mild pain in lower abdomen.

She had no past history of any chronic diseases like diabetes mellitus, anaemia, hypertension, hypothyroidism or any major illness or surgery and no significant family history of such illness. She had no personal habits of cigarette smoking or alcohol consumption.

Timeline

Diagnostic assessment

The patient was diagnosed as PCOD based on ultrasonogram by Allopathic doctor before Ayurvedic treatment. In Ayurveda PCOD is clinically resemble with *Pushpagni Jataharini* mentioned in *Kasyapa Samhitha.* In Ayurveda ovarian cysts may be managed on the line of treatment of *Kaphaja Granthi* disease and hence *Agnideepan* (carminative), *Vatanuloman* (normalising of aggravated *Vata Dosha*), *Medonasak* (hypolipidemic) and *Granthihara* (cyst reducing) drugs are selected in treatment.

Therapeutic intervention

The patient was treated at OPD of Central Ayurveda Research Institute, Kolkata. The treatment was planned on basis of the disease process. The following medicines (Table 1) were administered to the patient for 112 days with follow up every 14th day (total 8th follow up).

Table 1: Selected medicines for study.

Sl. No.	Drug	Dose	Anupan	Root of drug administration
01.	*Kanchar Guggulu*	1 gm. tablet 3 times daily after breakfast, lunch and dinner	lukewarm water	oral
02.	*Rajahpravartani Vati*	250 mg tab. 2 times daily after lunch and dinner	water	oral
03.	*Nisaamlaki Churna*	3 gm. 2 times daily after lunch and dinner	water	oral

The patient was advised to take light balanced diet containing milk products, fruits, green vegetables, old rice, barley and aerobic exercises etc. and avoid oily, spicy, fast and junk food, beverages, cold, sugar and salty food items, day sleep and other sedentary life style etc.

Follow-up and Outcome

After 42nd day of the treatment, improvement was noticed in menstruation and other associated symptoms. After 70 days, lower abdominal pain and associated symptoms were disappeared and duration and menstruation flow was normal.The Patient was advised for testing of ultrasonography after 8th follow up (112 days) days of treatment. The patient was advised to follow the restrictions including diet and daily activities. The findings of USG report are mentioned in Table-2.

Table 2: Result of Ultrasonography report.

Before treatment	**After treatment** (112 days)
Uterus: Uterus is anteverted; normal in shape, size and outline. Myometrial echopattern is heterogenous. Cavity is empty. Midline echo is normal. Endometrial thickness is 6.00 mm. Cervical canal is normal. **Ovaries:** Right ovary measures: 2.8 x 2.1 x 3.4 cm, Volume-10.6 cc. Few tiny cysts seen measuring 0.3 to 0.5 cm in diameters. Left ovary measures: 4.5 x 2.7 x 3.0 cm, Volume-19 cc. Few tiny cysts seen measuring 0.3 to 0.5 cm in diameters. **Impression:** Cystic ovaries (Polycystic ovarian disease). Chink of free fluid seen in Pouch of Douglas	**Uterus:** Uterus is normal in size, shape & normal in position. Endometrium echoline is centrally placed. Endometrial thickness: 1.30 cm. No focal lesion seen in myometrium. Cervical region appears normal. Uterus measures: 8.80 x 4.60 x 3.70 cm. **Ovaries:** Both ovaries are normal in size & shape. Both ovaries shows normal cortical echo pattern. Right ovaries measures: 3.30 x 1.80 cm. Left ovaries measures: 3.80 x 2.90 cm **Impression:** Sonographic findings are within normal limits.

REPORTING OF ADVERSE EVENT

No adverse reaction was found during entire treatment.

DISCUSSION

Modern medical science has no satisfactory result in the treatment of PCOD but only has symptomatic relief to the patients for certain period, which have lots of adverse drug reactions and lastly recommended for laparoscopic surgery. Allopath helps to manage and control the disease but comparatively, *Ayurveda* have various options of medicine to treat PCOD.

In *Ayurveda*, majority of gynecological disorders are included under *Yonivyapads* (genital disorders) and mainly occurred due to vitiation of *Apana Vata*. There is no direct reference about PCOD but its signs and symptoms may be correlated with *Pushpaghni Jataharini*

mentioned in *Kashyapa Samhita*. In this disease all three *Dosas* are derranged and *Artavavhaha* (channels of transporting menstrual blood), *Udakavaha* (channels of transporting tissue fluid) and *Medovaha Srotas* (channels of transporting adipose tissue or fat) are mostly affected. So, in the management of PCOD, *Agnideepan* (carminative), *Vatanuloman* (normalising of aggravated *Vata Dosha*), *Medonasak* (hypolipidemic), *Artavajanan* (menstrual promoting) and *Granthihara* (cyst reducing) properties of drugs are administered in this study.

Kanchanar Guggulu is mainly therapeutically used to treat G*ulma* (abdominal lump), G*andamala*, (cervical lymphadenitis), A*pachi* (chronic lymphadenopathy), *Granthi* (cyst), *Kustha* (diseases of skin), *Bhagandara* (fistula-in-ano) etc. This formulation is commonly prescribed to treat benign and malignant tumors where *Medodhatu* (adipose tissue) is reduced due to its *Lekhana* (scrapping) property[8] and also reduce and arrest the growth of ovarian cysts and stimulate the follicular maturity.[9] This formulation shows its action on *Lekhana* (scrapping), *Chedana* (reduction of *Kapha Dosa* and cyst from their origin) & *Granthihara* (cyst reducing) properties.[10]

Rajpravartini Vati, a combination of *Kanyasara* (aloe vera), *Kasisa Bhasma*, *Tankana* (borax), *Hingu* (Asa foetida) etc. act as *Vatakapha Nashak* and *Artavajana*n (menstrual promoting) for its *Ushna* (hot) property. It is mainly effective on *Artavavaha Strotas* (channels of transporting menstrual blood) and regularise menstrual flow with normalizing the function of *Apana Vata*. *Hingu* has anti flatulent, *Agni Deepan* (digestive) & *Shoolahara* (anti-spasmodic) properties.

Nishaamlaki (NA), a combination of *Haridra* (*Curcuma longa)* and *Amalaki* (*Emblica officinalis)* in equal proportion is prescribed as prophylactic as well as in the treatment of diabetes mellitus. It reduces vitiated *Kapha Dosha, Kleda* (tissue fluid) and *Meda* (adipose tissue or fat) due to its *Ruksha Guna* (non-unctuousness). It is effective in pre-diabetic state[11] and have PPARγ activity, which is effective in reducing insulin resistance.[12] and hence, it is correct hyperinsulinemia in PCOS.

Hence the combination of *Kanchar Guggulu, Rajahpravartani Vati, Nisaamlaki Churna* are selected for the study. Clinical sign and symptoms were reduced and remarkable changes were observed in ovaries and in menstrual bleeding with the *Ayurvedic* intervention. Therapeutic effects were evaluated by symptomatic relief and through Ultrasonography.

CONCLUSION

On the basis of clinical observation, it is concluded that the trialed intervention along with dietary restrictions are effective and safe in the management of Polycystic ovarian Disease (PCOD). No adverse drug reactions were seen during treatment period. Thus Ayurvedic treatment proved to be successful to treat PCOD. The patient was fully satisfied with *Ayurvedic* treatment.

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Conflicts of interest

There are no conflicts of interest.

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