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Case Study

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AYURVEDIC TREATMENTS FOR POLYCYSTIC OVARY **SYNDROME: A CASE REPORT**

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ABSTRACT

Polycystic ovarian syndrome (PCOS) is a complex disorder that affects several body systems and presents with a wide range of symptoms. It is characterized by a combination of genetic vulnerability, insulin resistance, hormone abnormalities, and environmental factors. Among the metabolic symptoms that may increase the risk of diabetes and cardiovascular disease are insulin resistance and metabolic syndrome, and impaired glucose tolerance. Ayurvedic treatments can help with other issues brought on by chronic PCOS, such as reducing hair growth and helping to restore regular periods. A 25-year-old unmarried woman who sought treatment at the Agad Tantra Evam Vyavahar, DSRRAU, Jodhpur, Rajasthan from Agra UP for irregular menstrual cycles, gradual weight gain and increasing facial hair for the past 5 months. It supports endocrine function and improves hormonal balance

in women with PCOS by reducing testosterone, LH, testosterone, and estradiol levels. It also has hypoglycemic effects by increasing insulin secretion and sensitivity and reducing cholesterol levels through increased bile acid synthesis, making it an effective treatment for PCOS.

KEYWORDS: Infertility, Dushivisha, Polycystic ovarian syndrome (PCOS), diebeties, metabolic syndrome.

INTRODUCTION

The presence of numerous tiny cysts on the ovaries, as well as irregular ovulation and/or high levels of male hormones, are among the factors that identify Polycystic Ovarian Syndrome, as per the Rotterdam criteria from 2003. A patient is diagnosed with PCOS if they show two of these three symptoms. It is estimated that between 5 and 15% of women have PCOS, and that figure is rising as more people lead different lifestyles. It appears in young women soon after puberty, and it's growing more common there. PCOS affects 15-25% of infertile women. Furthermore, between 50 and 70 percent of those with PCOS are obese. Not only do professionals miss a lot of essential information about PCOS, but the general public does too. As of right present, the reason or causes of PCOS are unknown. Research indicates that PCOS is caused by a complex interplay between genetic vulnerability, insulin resistance, hormone abnormalities, and environmental factors. Elevated testosterone levels and the effects of insulin resistance are thought to be two of the syndrome's key components. It is believed that ovarian dysfunction, obesity, and hypothalamic-pituitary abnormalities all have a role in the development of PCOS. This is still an active topic of study, and more research is needed to completely understand the underlying causes of PCOS. Polycystic ovarian syndrome, or PCOS, is a complex disorder that affects several body systems and presents with a wide range of symptoms. Reproductive symptoms include infertility, irregular menstruation, recurrent miscarriages, and abnormalities in the fetus. Persistent anovulation can cause amenorrhea, oligomenorrhea, infertility, and DUB. Among the metabolic symptoms that may increase the risk of diabetes and cardiovascular disease are insulin resistance, metabolic syndrome, and impaired glucose tolerance. Insulin resistance and metabolic syndrome have been linked to abnormal SHBG, a high body mass index (BMI), and a large waist circumference.

Insulin resistance has also been connected to Acanthosis nigricans. One of the main characteristics of PCOS is hyperandrogenism, which can manifest as skin tags, acne, hirsutism, and male pattern baldness. A few psychological conditions include eating disorders, anxiety, depression, low self-esteem, and decreased life satisfaction. Surgery and hormone therapy are the two primary treatments for PCOS available in modern medicine. Hormone therapy can help with other issues brought on by chronic PCOS, such as reducing hair growth and helping to restore regular periods. In cases of severe hyperthecosis and hyperandrogenism, surgical treatments include ovarian wedge resection, laparoscopic ovarian drilling, and infrequently, oophorectomy. In Ayurveda, there is no direct reference to Polycystic Ovary Syndrome (PCOS), but when we examine the literature, the clinical features of PCOS are similar to the condition known as Pushpaghni Jataharini in Ayurveda.

CASE REPORT

A 25-year-old unmarried woman who sought treatment at the Agad Tantra Evam Vyavahar Ayurveda, DSRRAU, Jodhpur, Rajasthan from Agra UP for irregular menstrual cycles, gradual weight gain and increasing facial hair for the past 5 months. The patient was overweight with a BMI of 28.4kg/m². An ultrasound revealed that she had bilateral PCOS.

Family history -The patient's father had been diabetic for 12 years.

Past medical history - There was no relevant past medical history.

MENSTRUAL HISTORY

Age of menarche	12 years
No. of days of bleeding	2-3 days
Interval	2- 3 months
Cycle	irregular
No. of pads	1-2 /day
Pain	+

PERSONAL HISTORY

Diet	Non-vegetarian
Appetite	Decreased
Thirst	Normal
Bowel	Constipated
Bladder	Normal micturition
Sleep	Excessive

Marital history: unmarried

PHYSICAL EXAMINATION

Blood pressure	110/80 mm of hg
Pulse rate	74/min
Respiration rate	20/min
Height	157 cm
Weight	70 kg

GENERAL EXAMINATION

Ashtavidha pariksha

S NO	Measure Name	Values
1	Pulse	70 per minute
2	Voice	Clear
3	Tongue	Saama
4	Urine	Regular
5	Build	Medium
6	Eyes	Prakrut
7	Stool	Regular
8	Touch	Anushna

Dashavidha Pariksha

S NO	Measure Name	Values
1	Region	Sadharan
2	Appetite	Moderate
3	Strength	Low
4	Prakruti	Vata-pitta
5	Disease	Moderate
6	Digestive power	Moderate
7	Age	25 years
8	Mental strength (satva)	Heena
9	Diet	Regular junk food consumption
10	Kala	8 months

Hetu: Irregular diet timings, spicy and junk food, sedentary life, no exercise, late night

sleeping

According to Ayurveda samprapti ghataka are as follows:

Dosha: Kapha, Vata

Dushya: Rasa, Rakta, Meda

Srotas: Rasavaha, Medavaha, Artavavaha

Srotodushti: Strotosang, Vimargamana.

Pratyatma lakshana: artavakshaya

INVESTIGATIONS

Blood Investigations: Haemoglobin-12.2g/dl, FBS-98mg%, PPBS-130mg%, and Thyroid profiles were within normal limits.

USG Findings: Slightly retroverted uterus of size 36 mm x 39mm x 56mm. Endometrial thickness of 9.2mm, right ovary with 9.6cc volume and left ovary with 8.4 cc volume. Both ovaries showed multiple small follicles of less than 6mm arranged at the periphery of either ovary. bilateral PCOS patterns were noted.

DIAGNOSIS

The diagnosis was made based on clinical history, Physical examination, and USG report.

AYURVEDIC MANAGEMENT

Internal medicine: following medicines were advised for 6 months.

Ashwagandha Churna	3gm BD after meals
Aarogya Vardhini Vati	1 TDS
Kaanchnar Guggulu	1 BD
Kumaryasavam	20 ml BD with after food
Triphala Churna	1 tsf at bedtime with warm milk

Pathya-Apathya and Vihar

Green leafy vegetables like spinach and broccoli are advised to be taken.

High fiber-rich foods like carrots and oranges.

Regular exercise 45 minutes and Yoga along with meditation.

Avoid processed and high-calorie food.

FOLLOW-UP AND OUTCOME AFTER 6 MONTHS

	BT	AT
No. of days of bleeding	2-3 days	3-4 days
Interval	60 -90 days	30-35days
Cycle	irregular	regular
No. of pads	1-2 /day	1-2 /day
Pain	+	+
Weight	70 kg	61 kgs
BMI	28.4kg/m2	24.7kg/m2
USG	Bilateral polycystic	normal uterus and ovaries,
	ovaries	dominant follicle on the left side

Along with a strict diet periods become regular 9 kg reduction in weight was also noted. Follow-up USG reveals normal uterus and ovaries, dominant follicle on the left side. other tissues (Dhathus) and can manifest as symptoms such as excessive weight gain and excessive facial hair. facial hair can occur due to vitiation of Asthi Dhathu as hair is a by Product of the asthi dhatu. Kapha and Medho Dushti (imbalance in the bodily fluids and fat metabolism) can happen due to excessive consumption of meat and lack of physical activity and deep sleep. These imbalances in the bodily humor (*Dosha*) and tissues (Dhathus) can affect the ovary and its morphology. Stress has a significant impact on PCOS.

Withania somnifera has been shown to be an effective antistress agent in many preclinical and clinical studies. It supports endocrine function and improves hormonal balance in women with PCOS by reducing testosterone, LH, and FSH levels. The GABA-mimicking properties of Withania somnifera extract play a crucial role in regulating hormone secretion. Treatment with the root's hydroalcoholic extract increases the estrus phase and decreases the diestrus phase, as well as reducing LH, testosterone, and estradiol levels in PCOS rats induced with letrozole. Withania somnifera also has hypoglycemic effects by increasing insulin secretion and sensitivity and reducing cholesterol levels through increased bile acid synthesis, making it an effective treatment for PCOS.

Aaroghyavardhini Vati is an Ayurvedic medicine that acts on the metabolic and circulatory systems (Rasa And Rakta Dhatu) and helps in the quality development of the follicles. It stimulates the functions of the liver and increases the secretion of sex hormone binding globulin, which leads to a decrease in androgen production. One of the major ingredients in Arogyavardhini Vati is Kutaki (Picrorhiza kurroa Royle ex Benth), which helps in reducing pitta and purifying the blood (Rakta Suddhi). This ultimately leads to the purification of the reproductive system (Artavavaha Srotas). Kanchanara Guggulu is an Ayurvedic herb which has properties that balance vata and kapha in the body, it also has scraping and antiinflammatory properties. It has been found to inhibit cell division and reduce cell proliferation and it also has cytotoxic effects. It is effective in balancing Kapha by boosting metabolism and burning fat and also enhances digestion. The herb Bauhinia variegata (Kanchanara) which is the main ingredient in this medicine has anti-inflammatory and antidiabetic properties which helps in reducing insulin resistance often associated with PCOS. Kumaryasavam helps balance Vata and Kapha in the body improves digestion and increases appetite. It also has the property of promoting ovulation, which is beneficial in treating PCOS. Triphala Choornam protects the body from free radicals and inflammatory and mutagenic changes, also has hypoglycemic action which reduces insulin resistance. other body tissues (Dhathus) and can manifest as symptoms such as excessive weight gain and excessive facial hair facial hair can occur due to vitiation of Asthi Dhathu as hair is a by Product of the asthi dhatu. Kapha and Medho Dushti (imbalance in the bodily fluids and fat metabolism) can happen due to excessive consumption of meat and lack of physical activity and deep sleep. These imbalances in the bodily humor (Dosha) and tissues (Dhathus) can affect the ovary and its morphology. Stress has a significant impact on PCOS. Withania somnifera has been shown to be an effective anti-stress agent in many preclinical and clinical studies. It supports endocrine function and improves hormonal balance in women with PCOS by reducing testosterone, LH and FSH levels. The GABA-mimicking properties of Withania somnifera extract play a crucial role in regulating hormone secretion. Treatment with the root's hydroalcoholic extract increases the estrus phase and decreases the diestrus phase, as well as reducing LH, testosterone and estradiol levels in PCOS rats induced with letrozole. Withania somnifera also has hypoglycemic effects by increasing insulin secretion and sensitivity and reducing cholesterol levels through increased bile acid synthesis, making it an effective treatment for PCOS.

OBSERVATION AND RESULT

Treatment was given for 3 months.

Patient followed treatment, diet, exercise, *pathya-apathya* strictly.

She got her normal menstruation (duration 4-5 days, interval 28 to 30 days) with normal flow from first month of treatment.

Her energy levels increased significantly and abdominal pain disappeared.

Motion habits and appetite improved.

USG was done again in 3rd month which revealed normal uterus and ovaries.

Follow up was taken for 3 months after stopping the treatment.

DISCUSSION

The buildup of toxins (*Aama*) in the metabolic system (*Rasadhathu*) is caused by an unhealthy food (*dushivisha*) and way of life (*Apathya Aahara Viharas*), which in turn leads to issues with the reproductive system (*Arthava Upadathu Dushti*). The selection and maturation of eggs are inappropriate due to this harmful condition. Regular exercise and yoga keep the body and mind in balance, which is a condition of excellent health, but the toxins produced also disrupt these processes.

CONCLUSION

Health issues like type 2 diabetes, hypertension, heart disease, and uterine cancer are more likely to affect women with PCOS. Infertility is also more likely to affect them. PCOS and its related disorders can be effectively managed with ayurvedic therapies. Weight management, which is frequently a problem for women with PCOS, can also be aided by a nutritious diet and regular exercise. Ayurvedic treatment can aid with weight loss, PCOS symptoms relief, insulin resistance improvement and ovulation stimulation.

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