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AYURVEDIC MANAGEMENT OF PCOS; A CASE REPORT

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Abstract

Maternal health remains a staggering challenge, particularly in the developing world. Polycystic Ovarian Syndrome is the most common disease in the female population among adolescence and reproductive age group mainly due to the adoption of westernized culture and due to change in the lifestyle and increasing Stress. Infertility associated with Poly Cystic Ovarian Syndrome (PCOS) is a major cause of concern in the present generation among the reproductive age groups due to undesirable lifestyle changes.

This is a case report of an infertile couple who had not been able to conceive since 4 yrs. The wife was diagnosed with PCOS. They underwent conventional treatments of primary infertility including IVF (In Vitro Fertilization) and hormonal therapy both the treatments were unsuccessful. The objective of the present treatment included Ayurvedic management of PCOS, ensuring regular ovulation and thereby helping to develop healthy pregnancy and successful childbirth. Based on the parameters of Ayurvedic science this case was diagnosed as *Vandhyatva* (Infertility) due to *Artavakshaya* (hypomenorrhea). Treatment plan was Virechana followed by Varunadighan Vati. During the treatment period she regained regular menstruation thereafter. The outcome of the Ayurvedic intervention was the conception of the patient within 4 months of treatment. It is evident from this study that these treatments can be a valuable and cost-effective alternative for addressing menstrual irregularities and metabolic issues in PCOS while ensuring safety.

Keywords - PCOS, Infertility, Virechana, Case report, IVF, Prakriti

Introduction

PCOS, defined by the Rotterdam criteria of 2003, is diagnosed when two out of three criteria are met: clinical/biochemical hyperandrogenism, oligo-/anovulation, and polycystic ovaries. Global PCOS

prevalence varies (2-21%)¹ based on factors like region, occupation, age, diagnostic criteria, and surveyed populations. PCOS can cause mental distress, affecting physical appearance, menstrual regularity, and fertility. Symptoms include oligo/amenorrhea, anovulation, obesity, hirsutism, acne, androgenic alopecia, and acanthosis nigricans. The exact cause is unknown, but insulin resistance and hyperandrogenism are key factors. This case report highlights Ayurvedic treatments (*Virechana* and *Varunadi Ghan Vati*) as an effective alternative for PCOS and infertility, offering hope when conventional treatments like hormonal therapy and IVF fail. All the Previous ayurveda treatment have been done with the symptomatic approach, but the metabolic side has been less explored, so this treatment was planned.

Case Report

Presenting concerns

In this case report, a 22-year-old married woman, who worked as a school teacher and had no history of smoking or alcohol consumption, presented with a complaint of infertility. She and her husband had been trying to conceive for four years, despite having unprotected intercourse and undergoing multiple interventions, including IVF. Her menstrual history revealed short and irregular periods, lasting 1-2 days and occurring at 45-50-day intervals. The menstrual flow had been scanty for the past 2.5 years. Prior specialized evaluations included ultrasonography (USG) and hormonal assays, such as serum prolactin and thyroid function tests. She had previously undergone one course of In Vitro Fertilization (IVF), which had been unsuccessful.

Clinical findings

The patient got married in the year 2019 at the age of 18 years. Investigations carried out on both partners after 3 years of married life. Husband having normal semen analysis with normal sperm count and motility. She attained menarche at the age of 13 years. Her obstetric history was nil.

Her past medical history includes the use of ovulation induction drugs such as Clomiphene Citrate and aromatase inhibitors like Letrozole. She underwent IVF due to anovulatory cycle which was unsuccessful. Family history was negative for Diabetes, PCOS and irregular cycle. Her personal history revealed a regular bowel habit and sound sleep. Previous surgical history not found. Her appetite was apparently normal and the tongue was coated.

On examination, she was calm and pain free. Her blood pressure was 120/80 mmHg, pulse rate 70/min, height 160cm, weight 59 kg, body mass index 23 kg/m2. She is of *Pitta Vata Prakṛiti* (Body Constitution) with *Madhyama Satva* (Moderate mental strength) and *Madhyama Koshtha* (Moderate bowel habit). Her physical examination and examination of external genitalia did not reveal any abnormal findings. Per speculum examination showed a healthy nulliparous cervix without any significant abnormality. Bimanual examination revealed an anteverted mobile uterus with a negative cervical motion tenderness.

Ashtavidha Pariksha: Nadi (Pulse)— Pittaj — Vataja; Mutra (Urine) — Samyaka Mutra Pravriti; Mala (Stool)— Sama; Jihwa (Tongue)— Sama; Shabda — Spashta; Sparsha (Touch) — Ushna; Drika (Eye) — Samanya; Aakriti (Physical appearance) — Samanya

Dashvidha Pariksha: Prakriti (Body Constitution) - Pitta – Vata; Sara (Purest body tissue) – Madhyama (Medium); Samhanana (Body compact) – Madhyam (Medium); Pramana (Body proportion)- Madhyam (Medium); Satmya (homologation) -Madhyam (Medium); Satva (Mental strength) – Pravara (High); Aaharashakti (Ability to eat) – Madhyam; Vyayaama Shakti (Ability to exercise) – Madhyam; Vaya (Age) – Madhyam Avasthaa

Serum TSH and Serum Prolactin was within normal limit. Her USG shows bilateral PCOS ovaries with multiple follicles in periphery. Investigations carried out before, during and after treatment shown in Table 3.

Timeline

Table 1 History of past and present treatment

History of past treatment				
Date	Observation	Treatment		
07.06.2020	Irregular menses	Modern medicine (clomiphene citrate		
		& Letrozole) from past 2 years		
23.07.2022	Irregular menses	menses IVF (fails)		
History of pre	esent treatment			
21.10.23	Irregular menses, USG –	Ayurveda treatment initiated		
	Polycystic ovaries			
06.11.22 -	Menstruation on 01.11.23	Deepana-Pachana, Snehapana,		
22.11.22		Virechana		
23.11.22 -	Wt. reduced from 59 to 56	Varunadi Ghan Vati		
25.02.23	kg; Menses regularize			
16.03.2023	UPT - positive			
04.04.2023	USG- Single, live,			
	intrauterine, early			
	pregnancy of about 7.2 wks.			
	of gestation age.			

Diagnostic assessment –

In the context of symptoms like scanty menstruation (hypomenorrhea) and the presence of cysts in the ovaries, this particular case was diagnosed as infertility due to PCOS. In this particular case study, *Virechana* was employed, after critical understanding of the pathophysiology of disease with its central

cause from Ama Utpatti to various Dhatu Dushti like Rasa Dushti (insulin resistance), Meda Dushti (obesity).

Therapeutic Intervention – The therapeutic plan was to administer *Shodhana Chikitsa* (purification therapy) followed by *Shamana Chikitsa* (oral medication). she was subjected to *Shodhana Chikitsa*. Initially, her *Agni* was corrected by *Dipana-Pachana* (improving digestion) with *Panchakola Churna* as a *Purvakarma* (preparation) of *Shodhana*. She attained *Nirama Lakshana* (signs of digestion of Ama) by 3 days after which *Accha Snehapana* (intake of oil) was started with *Go-ghrita*. *Samyak Snigdha Laksana* (signs of proper oleation) was observed after 5 days of *Snehapāna*. *Virechana* (purgation) was performed by the administration of *Trivrit Modaka*. After completion of *Shodhana* therapy, she was discharged from the hospital. After *Virechana Shamana Chikitsa* was done for 3 months with *Varunadi Ghan Vati*. Treatment protocol in Table 3. The assessment was done by USG with repeated evaluation after 4 months of *Shamana* (oral medication) and *Shodhana* treatment (purification therapy).

Table 2; Treatment protocol

Karma	Procedure	Drug	Method	Dose	Time &duration
	& Date				
Purva	Deepana &	Panchakola	Oral	_	BD A/F Till appearance of
Karma	Pachana	Churna	-	from 5 th	Niraama Lakshanas
				day of	attained in 3 Days
	06.11.22			menses	
	Snehapana	Go-Ghrita	Oral	Aarohana	Early Morning in empty
	10.11.22			Krama start	
	10.11.22 -			with 30ml,	11
	14.11.22			60ml, 90ml,	Samyak Snigdha
				120ml,	Lakshanas
				150ml	G 1 G:111: I 1 1
		341		– 5 days,	Sneha Siddhi Lakshana
				14 11	attained in 5 days
				Madhyam Kostha	
	Vishram	Tila Taila	External	45 min	Performance time till
	visnram Kala	Tua Tana	External	43 111111	appearance of Samyak
	Kata				Sweda Lakshana – for 3
	Sarwang				Days
	Abhyanga &				Days
	Vashpa				
	Sweda				
	15.11.22-				
	17.11.22				
Pradhan	Sarvanga	Trivrita	Oral	24gm	7am Empty stomach
Karma	Abhyanga &	Modak		(Madhyam	
	Sweda Before	(Virechana		a Koshtha	(16 <i>Vega</i>)
	Virechana	Drug)			

	drug			Modaka	
administratio				dose)	
n 18.11.22					
Pashchy	Samsarjan	Peya- vilepadi	Oral	Madhyama	Till the Agni Samanya
at		vilepadi		$2^{1/2}$,	
Karma	18.11.22 to				
	22.11.22				
Shamana Aushadha		-		Varunadi	3 months with Pathya
				Ghan Vati	Apathya advised
				1gm (QID)	

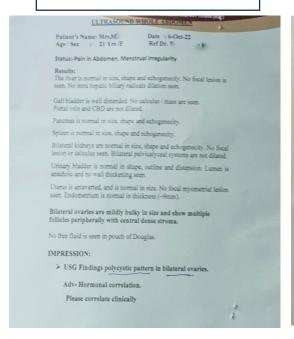
^{*}Niraama lakshana: Srishtamarutavidmutram (proper excretion of faeces, flatus and urine): Kshutpipasasaham (intolerable arise of Hunger and thrust): Laghum (lightness in body): Prasannatmendriyam (feeling happiness of all senses and soul): Kshaamam (thinness in body)²; *Samyak snighdha lakshana: Vatalunomana (passage of flatus), Agnidipti (stimulation of appetite), Twak snighdata (oleaginous nature of skin), Purisha snighdhata (oleaginous stools), Klama (feeling of tiredness)³

Investigations

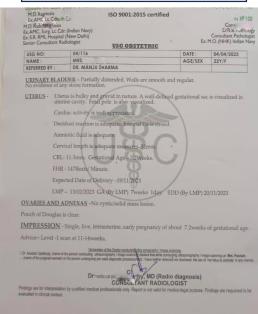
Table 3; Investigation before, after & during treatment

Date	Test name			
6.10.2022	USG - Bilateral ovaries are bulky with tiny follicles likely PCOS.			
23.10.2022	Hb – 11.4 g/dl, WBC – 11100 uL			
	TSH – 1.32 uIU/ml			
	Prolactin – 17.50ng/ml			
16.03.2023	UPT – positive			
04.04.2023	USG—Single, live, intrauterine, early pregnancy of about 7.2 wks.			
	of gestation age.			

Before Treatment



After Treatment



Follow up and outcome

The patient's treatment was started on 6 November 2022. Her treatment was continued with oral drugs for three months. Her cycle become regular with normal flow and weight reduced to 59 to 56 kg. On 4th April 2023 USG finding suggested single, live, intrauterine, early pregnancy of about 7.2 weeks of gestation age.

Discussion

PCOS is a complex disease rather than correlating to any one particular condition it is analyzed as complex pathology of Avarana (obstruction) involving Tridoshas and Rasa (insulin resistance), Rakta, Artava (menstruation) and Meda Dhatu (Obesity) as its Dushyas. Virechana, though being Pitta Pradhana Chikitsa also mentioned as good as in Kapha and Vata Dushti. It has been credited as Beejam Bhavati Karmukatam for its action on cellular and genetic level which has been proved earlier by various studies. This Virechana has also been proven efficacious in complex disorders like Prameha (insulin resistance), Sthoulya (obesity), and Meda-Pradoshaja Vikaras (metabolic syndrome & dyslipidemia / hyperlipidemia)⁴. Virechana relieves obstruction of Srotas (Avarana) reaching deeper tissues and able to act at the target cells. Proper Anulomana of Vata is achieved. Later it acts at impaired function of leptin reducing the hyper sensitivity of hunger receptors to ghrelin-exerting profound effect and proper rasa dhatu formation. The Vata attained normal Gati further rectifies the hypothalamo-neuro-endocrine axis for its normal LH & FSH surge. Simultaneously Virechana increases hepatic extractions and acts on impaired suppression of hepatic gluconeogenesis correcting the abnormalities at insulin receptor signaling causing proper insulin metabolism. This also improves the production of sex hormone binding globulin and favor for normal neuro endocrinal axis resulting in proper FSH: LH ratio.

Varunadi Ghan Vati helps to remove blockage in the channels and also works on polycystic ovary due to its properties. It may work like LOD (laparoscopic ovarian drilling). The most plausible mechanisms of action are the destruction of ovarian follicles and a part of the ovarian stroma, inducing a reduction of serum androgens and inhibin levels, which results in an increase of FSH and restores the ovulation function. It may also increase ovarian blood flow, allowing a high delivery of gonadotrophins.⁵

Conclusion - In this case report, Ayurvedic treatment with a combination of *Shodhana* and *Shamana* therapies was successfully employed to address polycystic ovarian syndrome (PCOS) leading to infertility. The treatment helped regulate menstrual cycles, reduce weight, and ultimately resulted in a positive pregnancy outcome. The holistic approach of Ayurveda, including *Virechana* and *Varunadi Ghan Vati*, appeared effective in addressing the multifactorial nature of PCOS, involving factors such as insulin resistance, hormonal imbalance, and ovarian dysfunction. These findings suggest the potential of Ayurveda as a complementary therapy for managing PCOS-related infertility.

Informed consent

Written consent was obtained from patient prior to treatment.

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