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CONSERVATIVE TREATMENT PROTOCOL ON LEAN POLYCYSTIC OVARIAN DISEASE

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ABSTRACT

Introduction: -PCOD is metabolic disorder becoming major cause of anovulation and hence infertility. There are two phenotypes of PCOD, obese and non-obese with different biochemical, hormonal and metabolic profiles. Although majority of cases are obese, but significant proportions of patients present with normal/low BMI that makes therapeutic approach difficult, termed as non-obese PCOD. We can correlate mainly with *Artavadushti*. **Materials and Methods: -** This is case report of 25yrs old woman, who came with C/o failure to conceive since 2 years. Her menstrual cycle was regular but USG reports revealed bilateral bulky ovaries with PCO++ with no dominant follicle on 30th July 2022. Conservative protocol for three months given to patient which included *Virechana karma and Ashwagandha Churna*, *Shatpushpa Churna* and *Rajapravartini Vati as Shamana Chikitsa*. **Result: -**On 20th Nov 2022 her UPT test was positive and her USG report showed 6.3 weeks of gestational age on 15th Dec 2022. She Delivered full term male child of 3.1kg on 27th July 2023. **Discussion: -** *Virechana* helped to purify *Strotas* and *Beejaotsarga* followed it. *Ashwagandha Churna* was *Rasadi Dhatuvarhana* specially *Shukra Dhatu*. Acharya Kashyapa has mentioned *Shatapushpa* as *Vatakaphashamana, Ritupravartini, Yonishukravishodhani. Rajapravartini Vati* enhanced metabolism and hence helped in *Samprapti*vighatana.

KEYWORDS: Non-obese PCOD, Artavadushti.

INTRODUCTION

Sedentary lifestyle and stress filled modern era has led to alterations in the activities of neuro-endocrine system causing health challenges like PCOD. Changing of life style of modern

human has created several disharmonies in his biological system. PCOD being one of them is an endocrine, metabolic and reproductive disturbance affecting women and is the foremost cause of anovulatory infertility. It has ovarian expression of various metabolic disturbances and wide spectrum of clinical features. Clinically it is characterized menstrual abnormalities, hirsutism, acne, obesity, insulin resistance and baldness. Lately incidence of PCOD (5-15%) is increasing, largely due to changing lifestyle. Among infertile women, about 15-20% of infertility cases are due to anovulation caused by PCOD.[1] If woman with PCOD conceives, she often develops carbohydrate intolerance, diabetes and hypertension. Pregnancy loss occurs in 20-30% cases due to abortions.[2] Stien and Leventhal first describe this syndrome comprising of amenorrhea with bilateral polycystic ovaries popularly known as Stien Leventhal syndrome.[3] Diagnosis of PCOD is based on Rotterdam's criteria which include two out of three findings: Oligo-anovulation, hyperandrogenism (clinical or biochemical finding) and polycystic ovaries (≥ 12 follicles measuring 2-9 mm in diameter and/or ovarian volume in either ovary ≥ 10mL).[4]

There are two phenotypes of PCOD, obese and non-obese with different biochemical hormonal and metabolic profiles. Although a majority of cases with PCOS are obese/overweight, a small but significant proportion of patients present with normal body mass index or low BMI (≤25 kg/m2) that makes diagnosis work up and therapeutic approach more difficult. These cases of PCOD are termed as non-obese PCOD. A Causative factor for non-obese PCOD are stress factor, nutritional factor and genetic factor. Women with non-obese PCOD may struggle with irregular periods, anxiety, uncontrolled blood sugar, fertility problems, and other caused by elevated androgen (testosterone) levels such as excess facial hairs and acne.[5]

In Ayurvedic classics, majority of Gynaecological disorders have been described under 8 *Artava Dushti* and 20 *Yonivyapadas.* PCOD cannot be included in any one of the *Yonivyapada* due to its various symptomatology and complex interactions with various systems. Ayurveda explains that it is not always possible to name a disease in a definite term. Polycystic ovary is not an exception for the same. Hence this disease has to be analysed according to the *Nidana Panchaka* theory of Ayurveda based on the concepts of *Dosha, Dushya, Srotas, Samprapti* and its management. Ayurveda offers a variety of medications and therapy regimens based on the *Artava Dushti* principle. As per Ayurveda, we can corelate the condition with mainly *Artavadushti* and variety of many symptoms of non-obese PCOS.

The pathophysiology of *Artava Dushti* may be due to the involvement of *Rasavaha-Raktavaha Srotas* and improper *Dhatu Poshana*. Due to the multifactorial aetiology and involvement of *Dosha Dushya Sammurchhana* at the cellular level, *Virechana* is essential part of Ayurvedic management of non-obese PCOD along with *Shamana*.

PRESENTING CONCERNS

A 25 yrs old married women, middle class family, housewife visited the OPD of *Stree-Roga Evum Prasuti Tantra* Department, ITRA, Jamnagar on 29th July 2022. Patient had married life of 3 years came with chief complaint of failure to conceive since two years and increased facial hair growth since 2 years. She had received allopathic treatment for the same 7 months ago when she was diagnosed with polycyctic ovarian disease. She discontinued allopathic treatment as she was not willing for it and visited OPD of *Stree-Roga Evum Prasuti Tantra* Department, ITRA Jamnagar thereafter she received treatment for four months.

CLINICAL FINDINGS

Last menstrual period - 20/07/2022

Menarche: 13 years

Menstrual history: Duration – 3-4 days,
Interval – 28-30 days
Painful (VAS-2), without clots
3-4 pads/day

GENERAL EXAMINATIONS

On presentation she was non-obese with height was 158 cm, weight 56 kg, Body mass index of 22.4 kg/m2 and blood pressure 122/78 mm Hg. The patient was mild hirsute over face with thick hair pattern over chin. On analysing her habits, it was found that the patient had history of *Adhyashana, Vishamashana, Atyashana* along with sedentary lifestyle and *Diwaswapa (1-2 hrs daily)* and *Ratri Jagrana.* She had a good appetite and bladder habit and regular bowel with regular sleep pattern.

SYSTEMIC EXAMINATIONS

Central Nervous System – Patient was conscious and well oriented

Cardiovascular System – S1 & S2 normal, no abnormal sounds was heard

Respiratory System – Bilateral clear, no added sounds was there

Per Abdomen examination – Soft, no tenderness.

Rogi Pariksha

Ashtavidha Pariksha

1.	*Nadi*	*Sama, Vata Pradhan* 76/min
2.	*Mala*	*Prakrit, Nirama*
3.	*Mutra*	*Prakrit*
4.	*Jivha*	*Saam*
5.	*Shabda*	*Spashta*
6.	*Sparsha*	*Ushna*
7.	*Drika*	*Prakrit*
8.	*Akruti*	*Madhyama*

Dashavidha Pariksha

1.	*Prakriti*	*Vatpradhana Kaphanubandhi*
2.	*Vikriti*	*Kapha, Vata, Artava Strotasa- Sanga*
3.	*Saar*	*Madhyam Saara*
4.	*Samhanana*	*Madhyam*
5.	*Pramana*	*Madhyama* Height: 157 cm Weight: 76 kgs
6.	*Satmya*	*Sarva Rasa Satmya*
7.	*Satva*	*Madhyam*
8.	*Ahara Shakti*	*Abhyavaharana Shakti*: *Madhyam* *Jarana Shakti*: *Madhyam*
9.	*Vyayama Shakti*	*Madhyam*
10.	*Vaya*	*Madhyam*

DIAGNOSTIC FOCUS AND ASSESSMENT

Investigations

Haematological tests- Normal

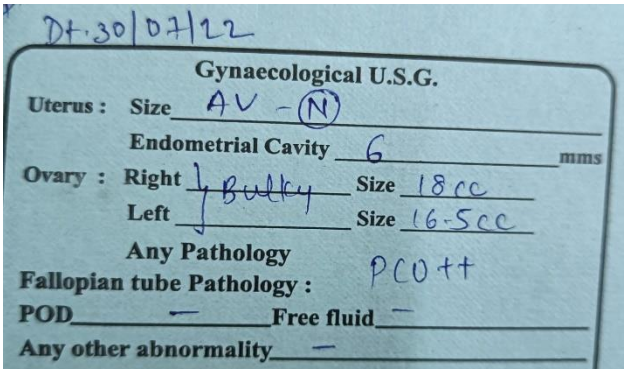
Biochemistry tests – Normal

Serological tests – Normal

Special investigations –

Special investigation (01/06/2021)	
Serum AMH (ng/ml)	3.61ng/ml
Serum FSH (mIU/ml)	8.9 mIU/ml
Serum LH (mIU/ml)	3.4 mIU/ml
HbA1c	5.4 %

USG findings – During treatment


Dt. 30/07/22

Gynaecological U.S.G.

Uterus : Size AV - (N)

Endometrial Cavity 6 mms

Ovary : Right Bulky Size 18 cc

Left Size 16-5 cc

Any Pathology

Fallopian tube Pathology : PCO ++

POD — Free fluid —

Any other abnormality —

USG Findings (30/07/2022)	
Left ovarian volume	16.5 cc
Right ovarian volume	18 cc
Endometrial Thickness	6mm
Bilateral bulky ovaries with PCO ++	

DIAGNOSIS

Based on the Rotterdam criteria diagnosis was made

- Hyperandrogenism clinical evaluation i.e., presence of thick hair over chin
- Presence of bilateral bulky polycystic ovaries as per USG findings.

THERAPEUTIC FOCUS AND ASSESSMENTS

The treatment protocol included both *Shodhana* and *Shamana*. The *Shodhana Chikitsa* included *Virechana Karma* which is mentioned in table.

1. *Virechan karma*

No.	Procedure	Drug & Dose	Duration
1.	*Deepana, Pachana*	*Musta-Shunthi-Haritaki choorna* each 1gm twice before food with luke warm water	6 days 23/07/22 to 28/07/22
2.	*Snehapana*	*Goghrita (Starting from 30ml upto max 100ml)*	5 days 29/07/22 to 02/08/22
3.	*Saravanga Abhyanga and Svedana*	-	3 days 03/08/22 to 05/08/22
4.	*Virechana Karma*	*Trivrutta Awaleha 120gm* at empty stomach with luke warm water Patient had 25 Vega	1 day 05/08/22
5.	*Sansarjana Krama*	*Manda, Peya, Vilepi etc*	7 days 05/08/22 to 11/08/22

2. *Shamana Chikitsa*

From 12/08/22 onwards (Starting soon after *Sansarjana*)

Sr. No.	Name	Dose & *Anupana*	Duration
1.	*Ashwagandha Choorna* + *Shatpushpa Choorna*	2 gm each twice daily with warm water before meal	3 months
2.	*Rajapravartini Vati*	250mg twice daily with warm water after meal	3 months

The patient was advised to do physical exercise daily for 30 minutes and to follow *Pathya – apathya.*

FOLLOW-UP AND OUTCOMES

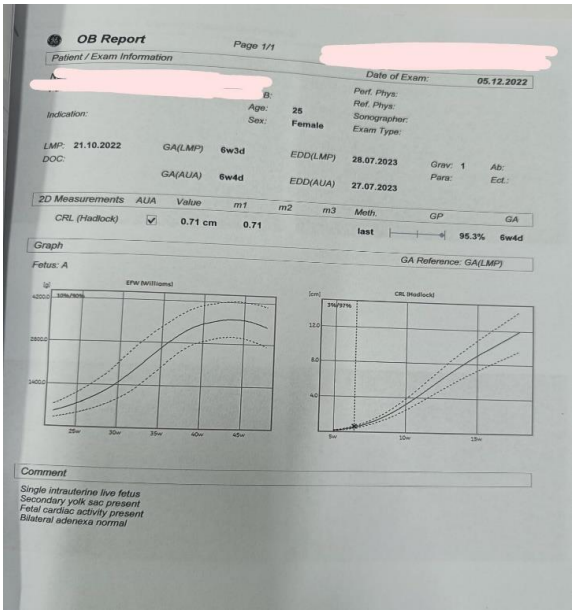
Along with treatment, ovulation study was conducted for three months.

- **Ovulation occurred** in the first month (**after *virechan***) on 12th day of menses (Dt.01/08/22); as well as third month of treatment on 12th day of menses (Dt.01/11/22).

Ovarian follicular study :

Date	Day	R.ovary	L.ovary	Endometrium	Cervical mucus
1/8	12th	CLT	–	8.8 mm	ovulation ++
28/9	10th	–	–	9.8 mm	
30/9	12th	10×12	–	9.8 mm	
3/10	15th	11	–	11	
29/10	9th	20×18	–	8.4 mm	
31/10	11th	20×20	–	9.4 mm	
1/11	12th	CLT	–	9.6 mm	ovulation ++

- Patient was advised to have coitus after ovulation, in the third month of treatment after ovulation.
- Patient had come to OPD after third month treatment with **UPT positive** at home (LMP 21/10/22).
- USG done on 5/12/2022; revealed **6.3 wks. Normal Gestation** along with normal fetal cardiac activity.


OB Report Page 1/1

Patient / Exam Information

Date of Exam: 05.12.2022

Perf. Phys:
Ref. Phys:
Sonographer:
Exam Type:

Indication:

Age: 25
Sex: Female

LMP: 21.10.2022 GA(LMP) 6w3d EDD(LMP) 28.07.2023 Grav: 1 Ab:
DOC: Para: Ect.:
GA(AUA) 6w4d EDD(AUA) 27.07.2023

2D Measurements	AUA	Value	m1	m2	m3	Meth.	GP	GA
CRL (Hadlock)	☑	0.71 cm	0.71			last	95.3%	6w4d

Graph

Fetus: A

GA Reference: GA(LMP)

EFW (Williams)

CRL (Hadlock)

Comment

Single intrauterine live fetus
Secondary yolk sac present
Fetal cardiac activity present
Bilateral adenexa normal

➨ Patient delivered full term male child of 3.1kg on 27th July 2023.

DISCUSSION

Conception requires a complex sequence that includes ovulation, Ovum is picked up by a fallopian tube, fertilization, transport of fertilized ovum into the uterus, and implantation into a receptive uterine cavity. To become a mother is the first right of a woman; In today's fast world due to lack of time, mode of life, and increasing mental stress, Infertility is emerging as a disorder affecting the social and psychological aspects of life. PCOS a significant public health problem and is one of the commonest hormonal disturbances affecting women of reproductive age. The condition affects an estimated 8–13% of women of reproductive age, and up to 70% of cases are undiagnosed.[6] Regarding to different ethnicity, the prevalence of **normal weight and underweight patients with PCOS** has been reported **1.5–6.6%.** In PCOS, an imbalance between androgens, anti-Müllerian hormone (AMH) and follicle stimulating hormone (FSH), cause a halt of follicular growth.[7]

In Ayurvedic classics, all disorders are mentioned under the umbrella of twenty types of ***Yoni Roga*** and eight types of ***Artavadushti.*** Each of the three *Doshas Vata*, *Pitta*, and *Kapha* have a specific role in the female reproductive cycle. ***Vata Dushti*** can be interpretated as irregular or scanty menses; ***Pitta Dushti*** **as** acne, hirsutism, and hormonal imbalances (excess circulating testosterone in the body) and ***Kapha Dushti*** as growth of cyst. Due to multifactorial etiology and involvement of *dosha-dushya* ***sammurchana*** **at the cellular level**, *shodhana* is essential part of ayurvedic management in PCOS. ***Acharya Kashyapa*** mentioned

that ***indriyas* get clarified, *uttarotar dhatu* clarification** occurs which leads to ***beeja karmukatvam***.[8] *Shodhana* normalizes ovarian functions by its purifying action, *Doshas* eliminated through *Shodhan chikitsa* are eradicated entirely (***Apunarbhavatva***).[9]

Treatment type	Drug/Procedure	Mode of action
Shodhana Chikitsa	*Virechan Karma*	***Acharya Kashyapa*** mentioned that ***indriyas* get clarified, *uttarotar dhatu* clarification** occurs which leads to ***beeja karmukatvam***.
Shamana Chikitsa	*Shatpushpa Choorna*	-*Vata-Kapha shamak, Tikshna, UshnaGunas*- useful for ovulation -*Shatpushpa* (according to *Acharaya Kashyapa*)[10] • *Bruhana & baalya* • *Pushti-agnivardhini* • *Rutupravartini and yoni-shukra vishodhani*
	Ashwagandha Choorna	-*Rasadi dhatu vardhana* -Specially *shukra* and *mansa dhatu* -*Balya* and *Kshayapaha*- necessary for treatment of lean patients
	Rajapravartini Vati	-Reduces *Rajorodha* -Improves liver functioning- *bhavana of Kumari swarasa*

CONCLUSION

PCOD is emerging lifestyle disorder which constitutes a major public health challenge in India as well as world. In modern medicine, management of PCOS includes use of hormonal therapy which restores menstruation, reverts hirsuitism and other co-morbidities. Surgical therapy include - ovarian wedge resection, laproscopic ovarian drilling and rarely oophorectomy.

Ayurveda emphasizes mainly on prevention of diseases rather than cure. *Virechan karma* along with *Ashwagandha-Shatapushpa choorna* and *Rajapravartini vati* is effective in management of lean PCOS. This treatment protocol first did *Strotoshodhana* followed by treatment which induced ovulation due to *Ushna Guna*. *Balya* and *Rasayana* properties of drug helped in proper *dhatuposhan* in non-obese patient. ***Avaranjanya samprapti*** eliminated by proper *shodhana* and *shamana* therapy which was evident by **ovulation and conception** in this case.

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