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Effect of an Ayurvedic Treatment Protocol for Polycystic Ovarian Disease-A Case Study

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ABSTRACT

Introduction: Polycystic ovarian disease is the most common disorder in women of reproductive age. It accounts for 5 to 8% of general population and 40% of women with infertility. It is evidenced with oligo or anovulation, oligo or amenorrhoea with other associated symptoms like obesity, alopecia, acne etc. In *Ayurveda*, similar condition can be understood under the broad concept of *artavakshaya* which is characterised by *yathochitakalaadarshana* [menstruation prolonged for more than one month] / *alpata* of *artava* [scanty menstruation not more than 3 days].

Methodology: This is a case report of a 23 year old lady with complaints of irregular menstruation since 8 years and diagnosed as Poly Cystic Ovarian Disease. She was given *snehapana* followed by *vamana* and then internal medications to support ovulation and regularise the menstrual cycle making her ready for conception. Assessment of bleeding was done with PBAC; duration of the cycle and no. of days of bleeding with Menstrual chart and ovulation with Follicular study before and after treatment and follow up.

Result: The result of the study showed that after the treatment the patient attained regular ovulatory menstrual cycle with normal bleeding.

Discussion and Conclusion: The treatment protocol was designed as per the line of management of artavakshaya. *Vamana* after proper *snehana* and *swedana* helped to normalise the kapha and improve the *āgneyadhatuvriddhi* thereby increasing the artava. The internal medications given like *mahanarayanataila* and *shatapushpachurna* support ovulation and regularise the menstrual cycle.

KEYWORDS

Ayurveda, Polycystic ovary, Anovulation, artavakshaya, oligomenorrhea, mahanarayanataila

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INTRODUCTION

Menstruation is the visible manifestation of cyclic uterine bleeding due to the shedding of endometrium following the active coordination of hypothalamo pituitary ovarian axis and responsive endometrium to ovarian hormones and a patent outflow tract. The first menstruation is expected to occur between eleven to fifteen years with an interval of twenty one to thirty five days and duration of menstruation can vary from three to seven days with an average blood loss of 20 to 80 ml. Ultimately it is expected to stop around the age of 45 to 55 years. In *Ayurveda* also, we can see similar concepts. Every month, the artava [menstrual blood] which is formed from rasa, flows out of the body for 3 days starting from the 12 years of age and finally undergoes diminution by 50 years of age[1]. Any deviation from this pattern of menstruation can be understood as pathology. It can be due to constitutional, anatomical and hormonal causes. Of the hormonal cause, PCOS is the most common disorder in women of reproductive age. It accounts for 5 to 8% of general population and 40% of women with infertility[2].It is characterised by chronic anovulation, hyperandrogenism and clinical presentations like menstrual disturbances, hirsutism and acne or androgen dependent alopecia. Additionally, it has association with obesity, metabolic disorders like insulin resistance, dyslipidemia, diabetics and cardio vascular disease. In 2003, ROTTERDAM criteria was put forward and according to that any two of the following three criteria are needed to diagnose PCO.

1. Ovulatory dysfunction such as amenorrhoea or oligomenorrhea
2. Clinical or biochemical evidence of hyperandrogenism.
3. Polycystic ovarian morphology on ultrasound scan defined as the presence of 12 or more follicles in each ovary and an increased ovarian volume of greater than 10 ml[3].

In *Ayurveda*, similar conditions are explained under different disease entities like vikuta, pushpaghni mentioned by Acharya Kasyapa, arajaska, lōhitakshaya andartavakshaya. When the present case is evaluated in the light of Rotterdam criteria and Ayurvedic concepts, it can be

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considered under the broad concept of *artava kshaya* which is characterised by *yathochitakalaadarshana*[menstruation prolonged for more than one month]/*alpata* of *artava*[scanty menstruation not more than 3 days][4].The treatment advised for *artavakshaya* comprises of shodhana followed by administration of drugs *āgneya*qualities. *Dalhana*recommends to do *vamana*as it helps *agneyadhatuvriddhi*[5]

CASE REPORT

A 23 year old housewife complaints of irregular menstruation since 8 years diagnosed as Poly Cystic Ovarian Disease.

HISTORY

The patient attained menarche at the age of 14 years in 2007.Since then she had regular menstrual cycle with the interval of 30 days with three to five days bleeding and one to two days spotting. Initial three to four days she usually uses 3 pads per day with moderate pain on the first day. This pattern continued till her 16 years of age i.e. till 2009.Then she started getting irregular menstrual cycle for 2 years, intermenstrual period range between 2 to 4 months with 6 days bleeding and 3 to 4 days spotting. Initial 3 days she used 5 pads per day followed by two to three pads in the following three days and then during the period of spotting she didn't use pads. In 2011, in her 18 years of age, she got married. After that also irregularity continued, so she consulted an allopathic gynaecologist and took US Gand was diagnosed with Bilateral Polycystic Ovary and the doctor prescribed progesterone tab to induce withdrawal bleeding. Since she and her husband were living separately [husband in Indian army], the doctor advised her to take OC pills for 3 consecutive months and she thus followed the treatment. After three months, she stopped the medicines and started getting regular periods with interval 30 to 35 days and bleeding for three days. The bleeding pattern was, she had only brownish spotting on the first day. On the second day, she needed 2 pads and on the third day bleeding was reduced and spotting on fourth day. This continued till the end of 2012.From 2013onwards, she started getting cycles irregular with two to four months interval and bleeding for 6 days, used 3 to 4 pads per day with mild lower abdominal pain in the initial 2 days. In April 2014, she went to stay with her husband aiming conception. There she consulted an allopathic doctor, relevant investigations were done. Semenogram of the male partner was normal. The female was confirmed with PCOS. The doctor advised her to take medicines for ovulation induction for three

cycles but ovulation didn't happen as confirmed by USG. Following that she returned back. The irregularity continued in such a way that the cycles occurred once in 3 to 6 months with reduced bleeding which continued for 2 days only. In January 2017, she approached the allopathic gynaecologist with a history of three months amenorrhea. She was given progesterone tab and as a result attained withdrawal bleeding which was painful and heavy. The bleeding continued for 10 days and needed 3 to 4 pads per day. She needed to take pain killers for the initial 3 days also. After that, she got menstruation with 60 day interval in the month of March 2017.Bleeding was for 3 days with 2 pads per day and spotting on the fourth day with mild lower abdominal pain on the first day. Then she approached our OPD on the 9th day of her menstruation.

She was advised for follicular study. On 25/3/2017 on her 11thday of menstruation the report came with the impression of bilateral polycystic ovary with no dominant follicle. The report was same on 27/3/2017. There is no significant past history of any chronic illness, no history of any kind of allergy or addictions. Her personal history revealed regular bowel habits and disturbed night sleep. She used to take an afternoon nap. She was a non-vegetarian prefers oily fried and spicy food. Appetite was reduced with constipation occasionally and with no exercise. She is the second child in her in the family with no similar complaints among her siblings or other family members. All the vitals were within the normal limits. On general examination, patient was conscious, alert, oriented to time, place and person. Height 160cm, weight 64 kg were noted. Systemic examination was done and found to be normal. Abdominal examination revealed no tenderness or masses.

Per speculum was done- cervix in mid position, normal on per vaginal examination, Uterus – anteverted, normal size, mobile, no cervical motion tenderness. Blood investigations like blood routine examinations, RBS & thyroid function tests were done.All the tests were found normal. After doing *rogarogipareeksha*, it's evident that there is vitiation of *agni* with *vata* and *kaphadushti*. As a result the timely expulsion of menstrual blood is affected. Also due to *kapha* and improper *agni*, the follicle development is hampered. Due to which, there is no development of dominant follicle. Since there is *yothochitakalaadarshana* of *artava*, the condition can be diagnosed as *artava kshaya*.

Duration of treatment- 3 months. Shodhana in the form of Vamana given

initially followed by internal medicines as shamana.

Assessment criteria

Assessment of bleeding was done with pictorial blood loss assessment chart (PBAC);duration of the cycle and no of days of bleeding with Menstrual chart and ovulation with Follicular study (USG) before and after treatment and two follow ups were taken on the consecutive two menstrual cycles after the treatment.

THERAPEUTIC INTERVENTION

The patient was given *hinguvachaadichurna*[6] 3gm bd for 5 days for *deepana – pachana* before food with luke warm water, followed by *snehapana* with *sukumaraghrita*[7] in increasing dose starting with initial 25 ml dose increasing day by day according to *agni* and *koshta* of the patient till *samyaksnigdhalakshaṇa*was obtained (25, 50,100,150,200,250 ml). (Got *samyaksnigdhalakshaṇa*on the 6th day.) External body massage with *Dhanwantarataila*[8] and sudation therapy was done for 2 days.

On 2nd day, *vamana* was done with *ksheeraakandapaana* and *yashtimadhukashaya*at 6.30 am.

Yashtimadhukashaya was prepared by adding 1 *kudava* of *churna* in 1 *adhaka* of water and reduced to half. 6 *vegas* wereobtained. *Madhyamasuddhi* was obtained.BP before 110/78 mm of Hg after 110/74 mm of Hg,pulse 68bpm,after*vamana* patient had little tiredness, patient felt hunger at 11.40 am.

Samsarjanakarma (special dietic regimen) for *madhyamasuddhi* is followed. (2 *peya*, 2 *vilepi*, *akritayusha*, *kritayusha*, *akritamamsarasa*, *kritamamsa rasa*)[9].

Then *mahanarayanataila*[10] 10 ml bd in empty stomach, *shatapushpachurna* 3gm bd 1 hour after food for 3 months. The details of the treatment is tabulated in Table 1.

Table 1: Details of treatment

Treatment	Medicine	No. Of days	Dose
Deepana – pachana	Hinguvachaadichurna	Day 1- day 5	3gm bd before food
Snehapana	Sukumaraghrita	Day 6-day11	25, 50,100,150,200,250 ml
Sarvangaabhyangaba-shpasweda	Dhanwantaramtaila	Day 12-day 13	
Vamana	Ksheeraakandapaana and yaṣhṭimadhu kashaya	Day 13	Ksheeram-2litres *Phantam*-4litres
Samsarjanakrama			
Samana	Mahanarayanataila	3 months	10 ml bd 2 hour before food in empty stomach
	Shatapushpachurna		3gm bd before food

OUTCOME

The outcome variables assessed before and after treatment and two follow ups are

tabulated in Table 2. The results of follicular study before treatment is tabulated in Table 3, after treatment in Table 4 and follow-up 1 in Table 5 and follow-up 2 in Table 6.

Table 2: Measuring the outcome variable before and after treatment and during follow-up

Parameter	Assessment tool	BT	AT	Follow up 1	Follow up 2
Interval of menstruation	Menstrual chart[11]	60 days	30 days	30 days	29 days
Duration of menstruation	Menstrual chart	3 days	5 days	5 days	5 days
Bleeding	PBAC[12]	46	78	77	75
Ovulation	USG follicular study	Bilateral polycystic ovarian morphology with no ovulation	Bilateral polycystic ovarian morphology with ovulation from right ovary	Bilateral polycystic ovarian morphology with ovulation from left ovary	Bilateral polycystic ovarian morphology with ovulation from left ovary

Table 3: Table showing follicular study Before Treatment

DAY	DF in right ovary in mm	DF in left ovary in mm	Endometrium	Fluid in POD
11	NO DF	NO DF	3.4 mm	nil
13	NO DF	NO DF	3.6mm	nil

Table 4: Table showing follicular study After Treatment

DAY	DFin right ovary mm	DFin left ovary mm	ENDOMETRIUM in mm	FLUID IN POD
10	13 x 10	no DF	5.7	nil
12	19 x 13	no DF	7.8	nil
14	23 x 16	no DF	10.2	nil
16	ruptured	no DF	11.2	free fluid

Table 5: Table showing follicular study during follow up 1

DAY	DF in right Ovary mm	DF in left Ovary mm	Endometrium mm	Fluid in POD
9	No DF	12 X 10	6	NIL
11	No DF	18 X 14	8.2	NIL
13	No DF	22 X 17	11.2	NIL
15	No DF	Ruptured	11.8	Free fluid

Table 6: Table showing follicular study during follow up 2

DAY	DF in right Ovary mm	DF in left Ovary mm	Endometrium mm	Fluid in POD
8	No DF	13 X 11	6.1	NIL
10	No DF	17.8 X 13.5	7.9	NIL
12	No DF	23 X 17	11.2	NIL
14	No DF	Ruptured	12	Free fluid

RESULTS AND DISCUSSION

The result of the study showed that after the treatment the patient attained regular ovulatory menstrual cycle with normal bleeding.

In *Ayurveda*, there is no direct reference regarding polycystic ovarian syndrome.

From the clinical presentations of the present case, it can be taken as *artavakshaya* where *yathochitakalaa darsana* is present. PCOS is an endocrine metabolic disorder with multi system involvement affecting the proper function of *agni*and*dhatus*. It is mainly a *santarpanotthavyadhi* where *agnimandya* is also manifested. Due to*agnimandya*, the *dhatwagni* is also deranged which may further lead to *rasa dushti* with *ama* formation and the *uttarottaradhatus* are also affected.Due to vitiation of *rasa*, its *upadhatu -artava* is affected along with the increase of *mala roopakapha.* There is vitiation of *kapha* which leads to *srotorodha*which adds up to the *srotorodha* affecting the *vata*. In*artava kshaya*, there is diminished *pitta dosha* leading to decrease in *artava*.

In the *chikitsasutra* for *artavakshaya*,*Acharya* has advised to do *shodhana* and use of *āgneyadravya*. *Dalhana* has specifically mentioned to do *vamana*. *Vamana* decreases the *saumyaguna* and increases *āgneyaguna*and is *kaphavatahara*[13]. Because of this property, it supports the removal of the *kaphaupalepa*from the *shrotas*,normalise the *vata*and supports the *Artava* which is having *āgneya* properties. Prior to *vamana*,*deepanapachana* was given with *hinguvachadichoorna* whereby the *agni* is corrected and *amapachana* is attained. The *yoga* is mainly *kaphavatahara* which supports the *samprapti*vighatana. Followed by that, *Sukumaraghrita* was given in increasing dose till *samyaksnigdalakshaṇa* was attained. It was considered on the basis of the involvement of *kaphavata* vitiation in this condition. It is indicated for ladies suffering from infertility. *Sarvangaabhyangabashpasweda* was done for two days. *Vamana* was done with *ksheeraakandapana* followed with *yashtimadhukashaya*. After *vamana*,*mahanarayanataila* and *shatapushpachoorna*was given as *samanadravya*. In *Sahasrayoga* it has been mentioned that intake of *MahanarayanaTaila*is beneficial in the management of infertility[10]. On analysing the properties of the drugs present it is predominantly *katutikta rasa laghurookshagunaushnaveerya*, *katuvipaka*and*vatakaphashamakadoshaghnata*.The drugs also have *prajasthapana* ,*rasayana*, *balya* and *brimhana*properties.*Shatapushpa* is indicated in *artavakshaya* by *Acharya Kashyapa*[14].It is *vatakaphasamaka* and *pithavardhaka* drug due to its *katutiktarasa*, *laghutikshnaguna* ,*ushnavirya*and with *Pachanakarma*[15].It act as *ritupravarthini*, *yonisukravishodhanai* and *putraprada*. There are many preclinical studies which

gives a clear indication that *shatapushpachoorna* helps in ovulation and owing to its phyto oestrogenic activity it is having a role in normalising the HPO axis[16].*Satapushpa* extracts showed significant anti-oxidant activity. Thus it can be understood that it helps in the reduction of oxidative stress and to maintain a balance between the production and removal of the reactive oxygen species. Hence it improves the quality of the ovum production and can support implantation.Thus the treatment protocol aims in correcting the *vatakaphadushti* and helps *pitta* and *agnivardhana*promoting the development and rupture of the follicles. As a result, the patient was able to attain regular ovulatory cycles.

STRENGTHS OF THE STUDY

Through the Ayurvedic interventions the patient was able to attain ovulation. The treatment was safe tolerable feasible and no side effects were reported by the patient. The treatment was effective in reducing the body weight of the patient from 64 kg to 61 kg that was very helpful for the particular case.

LIMITATION OF THE STUDY

The further infertility follow up could not be done as the patient on attaining the normal cycles left the state to join with her spouse.

CONCLUSION

Thus rooting on our Ayurvedic treatment principles for arthavakshaya ovulation and normal menstrual cycle could be attained for a patient diagnosed with PCOS.

REFERENCES

1. Bhisagacharya Harisastri Paradakara Vaidya,Ashtangahridayam With Sarvangasundara Of Arunadatta and Ayurvedarasayana of Hemadri, Chaukamba Orientalia, Reprint 2017, Sarira sthana, chapter1sloka number 7, page number 363

2. Shielabalakrishnan, Textbook of gynaecology Reprint 2011 p.97

3. HiralalKonar, DC Dutta Text Book OF Gynaecology: Jaypee Brothers Medical Publishers (P) LTD :Calcutta 6thEdition.Pagenumber 459

4. Acharya Vaidya Jadavji Trikamji Acarya: SushrutaSamhita with Nibandha Samgraha Commentary, Chaukamba Publications Varanasi,8th Edition 2005.sutrasthana.Chapter.15 Slokanumber12 . page number.167

5. Acharya Vaidya Jadavji Trikamji Acarya: Sushruta Samhita with Nibandha Samgraha Commentary, Chaukamba Publications Varanasi, 8th Edition 2005.sutrasthana .Chapter.15 Slokanumber12 .page number.167

6. Bhisagacharya Harisastri Paradakara Vaidya, Ashtangahridayam with Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Chaukamba Orientalia, Reprint 2017, Chi 14 31-33 p. 675

7. Krishnan KW, PillaiG,editors. Sujanapriya Commentary of Sahasrayogam (Malayalam), Ghritayogangal, 28thed.Alappuzha: Vidyarambham Publishers:2009.p.367

8. Krishnan KW, PillaiG, editors. Sujanapriya Commentary of Sahasrayogam (Malayalam), Ghritayogangal, 28th ed.Alappuzha: Vidyarambham Publishers:2009.p.287

9. Charaka Samhita Sidhistana 1/11-12 Acharya Vaidya Yadavji Trikamji Acharya; Agnivesha: Charaka Samhita with ayurvedadipika commentary by Sri Cakrapanidatta, Chaukamba Surbharati Prakashan, Varnasi

10. Krishnan KW, PillaiG, editors. Sujanapriya Commentary of Sahasrayogam (Malayalam), Ghritayogangal, 28thed .Alappuzha: Vidyarambham Publishers:2009 .p. 300

11. https://www.formtena.com/menstrual-calender/menstrual-calender-picture/

12. Hingham JMO Brien PM Shaw RW-Assessment Of Menstrual Blood Loss Using A Pictorial Chart A cademic Department Of Obstetrics and Gynaecology, Royal Free Hospital,Hampstead,London.Br J Obstet Gynaecol.1990 Aug97(8):734-9,PMID:2400752

13. Acharya Vaidya Jadavji Trikamji: SushrutaSamhita with NibandhaSamgraha

Commentary, Chaukamba Publications Varanasi,8th Edition 2005.sutrasthana .Chapter.15 Slokanumber12 .p.167

14. P.V.Tiwari, kashyapaSamhita,Reprint 2008, Chaukamba Orientalia, Varanasi, Kalpasthanam5/5p.348

15. Padmasree Prof.K.C.Chunekar, Dr.G.S.Pandey:Bhavaprakasha Nighantu Chaukamba Publications Varanasi, reprint 2015, Hareetakyadivarga., slokanumber 89p.34

16. Snehalata Pradhan,Utility of Shatapushpa(Indian Dill)in Kashyapa Samhita and its Critical Analysis, Int J Ayu Pharm Chem ISSN 2350-0204