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Ayurvedic Approach In The Management of Pcos Related Secondary Infertility: A Case Study

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ABSTRACT: -

Failure to conceive by a couple of regular unprotected coitus within one or more years, defined as infertility. Primary infertility indicates those women who have never conceived. Secondary infertility denotes having previous pregnancy but failure to conceive subsequently. For conception fertility potential of the male and female partners are essential. For infertility, about 40-55 % of females are directly responsible, males about 30-40 %, both partners are responsible 10%, and rest 10% is unexplained. According to FIGO MANUAL (1990), ovulatory factors are 30-40% responsible for female infertility. Nowadays, PCOS (polycystic ovarian syndrome) is the day-to-day burning issue in the Stree and Prasuti OPDs and also become the most common cause of anovulation which further causes infertility. PCOS is affecting 20-30% of young reproductive age group women. Women with PCOS having irregular menstruation, excess of androgens, insulin resistance, anovulation, and infertility, etc. According to Ayurveda, these types of characters are found in *Pushpaghni jataharini and Nasthartava* (no proper follicle growth and anovulation). It involves *dosha*, *dhatu*, *agni*, and *updhatu*. A 21 years old female patient k/c/o PCOS, came to Stree roga and prasuti tantra OPD of NIA, Jaipur, with chief complaints of primary infertility since 1.5 years and scanty menses for 5 years. In this article, treatment with *Stayanashodhak mahakashya gana kwath*, *Madhumehari churna*, and *Phalasarpi* is reported for 1.5 months and after that, she was conceived.

Keywords- Infertility, PCOS, *Stanayashodhak Mahakashaya*, *Madhumehari churna*, *Phalasarpi*



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INTRODUCTION

Polycystic ovarian syndrome (PCOS) is known as a syndrome which clinically manifested by menstrual irregularities, acne, hirsutism, and obesity-associated with enlarged polycystic ovaries^[1]. That heterogeneous disorder is characterized by excessive production of androgen by the ovaries mainly. PCOS is a polygenic and multifactorial condition. This disorder can be predominantly biochemical (hyperandrogenemia) as well as morphological (polycystic ovaries). A clinical characteristic feature of PCOS is hyperandrogenism which can cause inhibition of growth of follicular, anovulation, menstrual changes, and after that infertility causes. It is prevalent in the female of the young reproductive age group as 20-30% and may be seen in about 20% of normal women^[2]. It has clinical features like increasing obesity (abdominal-50%), menstrual abnormalities (70%), and infertility. The American Society of Reproductive Medicine (ASRM) or European Society for Human Reproduction (ESHRE) or Rotterdam criteria 2003^[3] has are given the international diagnostic criteria for PCOS where the presence of any two criteria confirms the diagnosis. These are oligomenorrhea (the intermenstrual period is more than 35 days) and /or anovulation, Hyperandrogenism clinically (hirsutism)/or biochemically (elevated serum testosterone concentrations), and/or polycystic ovary. According to a study, polycystic ovarian syndrome is the most common cause of

anovulation which affecting 90 to 95% of the fertility of women. 50 to 80% of PCOS suffering women also faced insulin resistance, primarily in those who are overweight. If there is no ovulation, then no formation of corpus luteum. There is absence of secretory endometrium in the second half of the cycle, due to absence of progesterone, after that there is no menstruation and then there is no fertility. According to Ayurveda, there are some important essential factors for healthy conception are *Reetu* (fertile period), *Kshetra* (uterus and female reproductive organs), *Ambu* (*rasadhatu*, proper mother nutrition), *Bija* (*shukra-shonita*), the normalcy of *Hridya* (emotional factors) and properly functioning *vata*^[4] (normal nervous system) and *sadhbawas*^[5] (mother, father, *atma*, *satwa*, *satmya*, and *rasa*). Abnormalities in any one of them can cause infertility. According to Ayurvedic classical text, *Vandhyatva* (infertility) is failure to give birth to a baby or experiencing *garbha strava* (repeated abortion) or *mrutvatsa* (stillbirths). In Ayurveda infertility described under various type of heading like *beejdoshaj vikara*^[6], *yonivyapada* (*vandhya yonivyapad*) , *jataharini*^[7] (*pushpaghni*), etc. *Acharya Harita* has described six types of *vandhya* , *Kakvandhya* (secondary infertility), *Anapatya* (primary infertility), *Garbhstravi* (repeated abortions), *Mrutvatsa* (stillbirth), *Balakshaya* (loss of strength), and *Garbha Kosh bhanga* (injury to the uterus). According to *Acharya Sushruta* vitiated *vata dosha* is responsible for

vandhya^[8] and in this condition loss of *artava* (menstrual blood) occurs.

In Ayurveda, there is no direct description of PCOS but when we go through the Ayurvedic classical textbooks, there are many references that can be correlated with signs and symptoms of PCOS. It comes under many headings like *yonivyapad* (*vataj*, *arajaska*, *lohitaksaya* and *,vandhya yonivyapad*), and *artavyapad* (*vataj artavdushti*, *ksheen artavdushti*), etc. Based on these principles, there is the presence of *dushti* (vitiating) of *dosha* (*vata-kaphadosha*), *dhatu* (*rasa-rakta dhatu*), *updhatu* (*artava*), and *Dhatwagnimandhya*. Our Acharya mentioned that *Apanvayu* lies in the pelvic area where all female reproductive organs lie and governs all physiological action like excretion of urine, stool, menstrual blood, and fetus. So, the management of PCOS should be targeted at *Agni deepana*, *Pachana*, *Vatanulomana*, and *Rasaraktaprasadana*. The line of treatment was followed in this case to treat the provoked *vata-kaphadosha* and vitiated *rasadhatu*.

CASE STUDY

OBJECTIVE-

To study the effectivity of *Stanyashodhak mahakashya gana kwath*, *Madhumehari churna*, and *Phalasarpi* in the management of PCOS with secondary infertility.

Study Details

- Name of patient-XXX
- Date of first visit-20/06/2020

- Age-21 Years
- Religion-Hindu
- Occupation-Housewife

Chief Complaint With Duration

- 1- Scanty menstrual flow since 5 years.
- 2- Unable to conceive since 1.5 years.

History of Present Illness

According to the patient, she was asymptomatic five years. Gradually she develops complaints of scanty menses and after ultrasonography PCOS was found. After marriage had been trying to conceive but failed to do so despite regular unprotected coitus for 1.5 years. She visited PTSR OPD of NIA, Jaipur, for proper investigation and Ayurvedic management.

History of The Patient

Personal History

- Diet-veg
- Appetite-Normal
- Bowel-clear
- Bladder-clear
- Sleep- Sound
- Medication-Nil
- Addiction-Not any
- Past medical/surgical history-Not significant

Family History

- Not significant

Menstrual And Marital History

- Menarche-at the age of 13 years
 - LMP -02/06/2020
 - Menstrual History

Table 1-

Duration of menses blood flow	1-2 days
Intermenstrual period	30 days
Regular/ Irregular	Regular
No. Of pads/day	1-2 pads/day(not fully soaked)
Clots	Few
Colour	Dark red
Foul smell in menstrual blood	Not present
Associated complaints	Not any

Married life- 2 years
Active married life- 2years
Obstetrics History

- G1P0A1LO
- G1- Spontaneous abortion ,1.5 months of pregnancy, in 2020

Ashtavidha Parikshana (Eight Folds of Examination In Ayurveda)

- *Nadi* (Pulse) - 82/min, regular.
- *Mala* (Stool) –*Nirama*
- *Mutra* (Urine) – 5-7 times/day, pale yellow
- *Jivha* (Tongue) –*Nirama*
- *Shabda* (voice) - *Prakruta & Spasta*
- *Sparsha* (Touch) - *Sama Shitoshna*
- *Drika* (vision) - *Prakruat*
- *Aakruti* (Body proportion) - *Madhyama*

Physical Examination

General Examination-

- Height- 155cm
- Weight- 51 kg
- BMI- 21.2
- B.P- 110/70 mm Hg
- Averagely built and nourished
- Pallor- Nil
- Secondary sexual characters- Normal and age appropriate
- Nails, tongue, and conjunctiva- Pink
- No evidence of lymphadenopathy, icterus

Systemic Examinations

- Respiratory system – Air entry bilateral clear
- Cardiovascular system –S1 S2 audible
- Central nervous system – Conscious

INVESTIGATION

- USG– 02.06.2020
 - Both ovaries were slightly bigger in size with peripherally placed few small follicles with central stroma.
 - Impression- PCOS.
- Hb- 9.9 gm%

- LFT, RFT, LIPID PROFILE, THYROID PROFILE-WNL

The Treatment Schedule For The Present Study

Principle Of Treatment- Treatment should be *agni deepaka, ama pachana, vatashamak, and raktashodhak.*

- 1) *Nidana Parivarjana* (Elimination Of Causes):- Complete history taken and eliminate possible causes of the disease, like faulty dietary habits, fast food,late-night sleeping, overthinking, *Viruddha Ahara* , *Vegvidharan* (withholding natural urges like stool, urine). *Nidan parivarjan* is the first treatment mentioned in first chapter of *Sushruta's Uttarantra*.
- 2) *Aahar Vyavastha* (Dietary Changes)- Advice use diet green leafy vegetables, *jau* (barley), Bitter gourd, Green gram (*Mudga*), *Puran Shali* rice, cow milk & ghee in diet and seasonal fruits, plenty of water, because food is great medicine (*Acharya Kashyapa* mentioned that *Aahar is Mahabhaishajya*). She regularly followed *Rajaswala charya*^[9] in first three menstruating days -
 - *Shali* rice/ Old rice cook with Cow's milk + *mishri*
 - Porridge(*daliya*) of *Jau* (Barley) cook with Cow's milk, *mishri*
 - Chapati of *Jau* flour with an abundant amount of Cow' ghee
 - Seasonal sweet fruits.
 - Avoid- Normal diet like wheat's Chapati, Salt, Spices, mustard /refined Oil, Sour fruits, etc.

3)-Drug administration-These all medicines are given orally for 1.5 months.

1- *Stanyashodhak mahakashya gana kwath*- 15 ml twice a day empty stomach (morning-evening)

2-*Madhumehari churna*- 3gm twice a day after meals with water.

3-*Phalasarpi*- 5 ml twice a day empty stomach with lukewarm cow's milk.

Ayurvedic Pharmacological Properties And Action Of The Drug

Table-2

1- *Stanyashodhak Mahakashya Gana Kwath*^[10]

<i>Dravya</i>	<i>Rasa</i>	<i>Guna</i>	<i>Veerya</i>	<i>Vipaka</i>	<i>Karma</i>
<i>Patha</i> (<i>Cissampelos</i> <i>pareira</i>)	<i>Tikta</i>	<i>Laghu,</i> <i>tikshana</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridoshashamak,deepan,pachana,</i> <i>Raktashodhaka</i>
<i>Mahaushadh</i> (<i>zingiber</i> <i>officinale</i>)	<i>Katu</i>	<i>Laghu</i> <i>,snigdha</i>	<i>Ushana</i>	<i>Madhura</i>	<i>Vatakaphashamak,vatanulomana,</i> <i>raktashodhak ,vrishya,Deepan</i> <i>,AamPachan</i>
<i>Musta</i> (<i>cyperus</i> <i>rotundus</i>)	<i>Tikta,katu,</i> <i>kashya</i>	<i>Laghu</i> <i>,ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha shamak,deepan</i> <i>,pachana,raktaprasadak,stanyajan</i> <i>ana,Rajorodhhara.</i>
<i>Guduchi</i> (<i>tinospora</i> <i>cordifolia</i>), <i>Murva</i> (<i>marsdenia</i> <i>tenacissima</i>)	<i>Tikta</i> <i>kashaya</i>	<i>Guru,</i> <i>snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridoshshamaka, deepan</i> <i>,pachana,anuloman,raktashodhak,</i> <i>raktvardhaka,pramehhara.</i>
<i>Vatsaka phala</i> (<i>holarrhena</i> <i>antidysenterica</i>)	<i>Tikta</i> <i>kashaya</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphavatashamaka,deepan,raktsh</i> <i>odhaka</i>
<i>Kiratatikta</i> (<i>swertia</i> <i>chirayita</i>)	<i>Tikta</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Kaphavatashamaka,deepana,</i> <i>aampachna,anulomana,</i> <i>raktshodhaka.</i>
<i>Katurohini</i> (<i>Picrorhiza</i> <i>kurroa</i>)	<i>Tikta</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittahara,deepan,rakatshod</i> <i>haka,pramehhara,</i>
<i>Sariva</i> (<i>hemidesmus</i> <i>indicus</i>)	<i>Madhura ,</i> <i>Tikta</i>	<i>Guru,</i> <i>snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridoshshamak,deepan,pachan,</i> <i>anulomana,raktshodhaka,</i> <i>garbhsthapana.</i>

Table 3-

2- *Madhumehari Churna*^[11]

<i>Dravya</i>	<i>Rasa</i>	<i>Guna</i>	<i>Veerya</i>	<i>Vipaka</i>	<i>Karma</i>
<i>Jambubeeja</i> (<i>syzygium Cumini</i>)	<i>Kashya</i> , <i>madhra</i> , <i>amla</i>	<i>Laghu</i> <i>ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapitta shamak,deepan ,pachan,beej</i> <i>pecially used in madhumeha</i>
<i>Aamrasthi</i> <i>majja</i> (<i>mangifera Indica</i>)	<i>Kashaya</i>	<i>Laghu</i> <i>ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittashamak,deepan,</i> <i>Garbhashayshothhara,pramehahara.</i>
<i>Karvellaka</i> (<i>momordia Charantia</i>)	<i>Tikta,</i> <i>katu</i>	<i>Laghu</i> <i>ruksha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Kaphavatashamak,deepan, pachana,</i> <i>Raktshodhaka, stanyashodhak,</i> <i>Artavjanana,pramehahara,incearses</i> <i>insuline level</i>
<i>Meshshurangi</i> (<i>gymnema sylvestre</i>)	<i>Kashya ,</i> <i>Tikta</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Kaphavatashamaka,increases</i> <i>insulin,Secretion,rajorodhhara,</i> <i>deepana</i>
<i>Methika</i> (<i>trigonella foenum</i>)	<i>Katu</i>	<i>Laghu ,</i> <i>Snigdha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Vatashamaka,deepan ,pachana,</i> <i>anuloman,stanyajanana.</i>
<i>Bilva patra</i> (<i>aegle Marmelos</i>)	<i>Kashya ,</i> <i>Tikta</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Kapha-vatashamak,deepan ,pachana,</i> <i>Pramehahara,garbhashya shothhara,</i>
<i>Nimba beeja</i> (<i>azadirachta Indica</i>)	<i>Kashya ,</i> <i>Tikta</i>	<i>Laghu,</i> <i>ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittashamak,raktashodhak,deepan,</i> <i>madhumehahara</i>
<i>Shunthi</i> (<i>zingiber officinale</i>)	<i>Katu</i>	<i>Laghu</i> , <i>snigdha</i>	<i>ushana</i>	<i>Madhura</i>	<i>Vatakaphashamak,vatanulomana,</i> <i>raktashodhak ,vrishya,Deepan ,Pachan</i>
<i>Mishreya</i> (<i>foeniculum Vulgae</i>)	<i>Katu ,</i> <i>Tikta,</i> <i>Madhura</i>	<i>Laghu,</i> <i>Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>vatashamaka,deepan ,pachana,</i> <i>anulomaa,sothhara,stanya janana,</i> <i>raktprasadhaka.</i>
<i>Bala beeja</i> (<i>sida Cordifolia</i>)	<i>Madhura</i>	<i>Laghu,</i> <i>snigdha</i> , <i>picchil</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatashamaka,prajasthapana</i>
<i>Babulphala</i> (<i>acacia Arabica</i>)	<i>Kashya</i>	<i>Guru ,</i> <i>Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittashamak,garbhashya</i> <i>Sothhara.</i>
<i>Swarnapatri</i> (<i>cassia angustifolia</i>)	<i>Katu</i> , <i>tikta</i> , <i>madhura</i> , <i>kashya</i>	<i>Laghu ,</i> <i>Ruksha</i> , <i>Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vatanulomana,kapha-vatashamaka,</i> <i>Raktshodhaka.</i>

3- Phala sarpi^[12]

It contains *manjistha* , *kushta*,

tagara, *triphala* , *vacha* , *madhuka*, *meda*,
dipyka, *katurohini* , *payasa* , *kakoli* , *shatavari*
and *hingu* .

Dravya	Ras	Guna	Veerya	Vipaka	Karma
<i>Manijistha</i> , <i>Kushth</i> , <i>Tagara</i> , <i>Vacha</i> , <i>Dipyka</i> <i>Katurohini</i> (<i>sheetaveerya</i>) , <i>Hingu</i> , <i>Haritaki</i> (<i>madhuravipaka</i>) , <i>Bibhtaki</i> (<i>madhuravipaka</i>).	<i>Tikta</i> <i>Kashaya</i> , <i>Katu</i>	<i>Guru</i> , <i>Ruksha</i>	<i>Ushana</i>	<i>Katu</i>	<i>Kaphavatashamak</i> , <i>deepan</i> , <i>pachana</i> <i>raktashodhaka</i> , <i>stanyashodhaka</i> , <i>artavjanana</i>
Rest all	<i>Madhura</i> , <i>Kashya</i>	<i>Guru</i> , <i>snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatashamaka</i> , <i>Stanyajanana etc.</i>

RESULT

After following this treatment, the patient's menses did not come in the next cycle and she did UPT at home which was found positive on 8/8/2020.

DISCUSSION

According to Ayurveda, ovarian factor associated with *Vandhyatva* is *VataKaphaPradhana Vyadhi*. Associated *dhatwagnimandta* , *Vikruti* of *apanavayu*, *rassraktadhatu* occurs. Hence the main line of treatment used was, *Vatakaphashamaka*, *Agnidipana*, *Pachaka*, *Vatanulomaka*, *Brimhana*, and *raktashodhaka*. There is no mention of rationale of treatment you used particularly in this patient.

In these medicines, mostly drugs having properties like *tikta-katurasa*, *laghu-ruksha guna*, *katu vipak*, *ushna-virya* which do *rasadhatuposhan* and after that *samyaka rasa* formation occur. As *artava* is *upadhatu* of *rasa dhatu* so *artavajanana* is achieved by all this. These drugs having *vatakapha shamana* , *aagnidipan*, *aampachan*, *vatanuloman*, *artavjanana* , *raktashodhka* properties. By these qualities, *strotoshodhan*

occurs and then the proper formation of all *dhatu* and *upadhatu* happened, by which it might help in ovulation. These drugs facilitate the normal action of *Vata* which stimulates the normal production of *Artava*.

According to Ayurveda, the food is digested first by the *jathrangni* (digestive-fire) further digested by *Dhatwagni*. This *dhatwagni* can be compared with liver enzymes. Due to the slowing Any abnormality in *Dhatwagni* (Metabolism) may lead to improper formation and assimilation of subsequent *Dhatu* in the body and also cause obstruction of micro-circulation channels. If proper formation of any *dhatu* gets hampered. In PCOS, hypofunction of *Dhatwagni* may lead to metabolic disorders like obesity (belly fat mainly), dyslipidemia, and hormonal dysfunction which further causes menstrual irregularities, anovulation, etc. *Stanyashodhak gana* and *phalasarpi* contain *Kutki*, which is a very good liver stimulant drug that stimulates *dhatwagni* for the proper formation of *dhatu*. *Phalasarpi* enhances fertility by providing strength to the uterus and improves the chances of conceiving. According to *Vagbhat*, *Phalasarpi* helps the woman to conceive and is

best for treating female reproductive disorders. It is having properties like *Balya*, *Vatahara*, *Brihaniya*, *Garbhadharana* and *Rasayan*. Probably, *Phalasarpi* stimulates the hypothalamus-pituitary ovarian axis which increases Gonadotropin secretion and regulates enzymes involved in ovarian steroidogenesis. *Madhumerahi churna* is generally used in diabetes but here we used it mainly to treat PCOS, because insulin resistance is a characteristic feature of diabetes as well as PCOS. After followed this treatment protocol patient conceived within 1.5 months.

CONCLUSION

According to Ayurveda, PCOS disorder involves *Vatakaphadosha*, *vitiatio*n of *rasa-raktadhatu*, *artva updhatu* and *dhatwagnimandta*. To combat this, we need the drug which pacifies the *dosha*, balances *dhatu*, and enhances *dhatwagni*. *Stanyashodhak gana* and *madhumerahi churna* are quite effective to treat PCOS as well as *Vandhyatwa* by regulating menstruation and induces ovulation. *Phalasarpi* is a widely used medicine in female infertility due to its *Balya*, *Vatahara*, *Garbhadharan*, and *Rasayan property*.

Ayurveda medicines enhance the body systems participating in the process of ovulation and gives an excellent alternative for reaching fertility. After adopting a holistic Ayurvedic treatment, *aahar-vihar* regimen, can prove to be effective in the management of PCOS-related infertility.

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