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Role of Ayurveda in management of Ovulatory Factor Infertility Associated with Hyperprolactinemia: A Case Report

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ABSTRACT

Infertility affects approximately 17.5% of the global adult population, with about 8% of currently married women in India being infertile, most are experiencing 2° infertility (5.8%). Ovulatory abnormalities account 25% of all causes of female infertility. Hyperprolactinemia (HPRL) causes infertility by suppressing the hypothalamic-pituitary-gonadal axis, which reduces ovarian estrogen release, resulting in anovulation and infertility. Infertility develops from oligo-ovulation or anovulation since no oocyte is released, thus there is no chance of fertilization. This can be understood as *Artava Dushti* from classical Ayurvedic perspective associated with *Rasa Dhatva Agni Mandya*. The treatment principles lie in regulating the *Agni* followed by alleviating the *Kapha* which obstructs the *Strotas.* A 40-year-old female patient present with complaint of unable to conceive since 7yrs despite regular unprotected intercourse, with additional complaints of bloating, body heaviness, and headaches during menstruation. She was diagnosed with PCOD in 2017 and underwent ovarian drilling and unsuccessful fertility treatments, including IUI and ICSI. Then she approached SJSACH OPD for further treatment where she was diagnosed with HPRL and Hypothyroidism. The patient underwent *Vamana* as *Shodhana Chikitsa* followed by *Shaman Chikitsa*, resulting in a significant reduction in TSH and prolactin levels, leading to normal ovulation. Hence conditions of Anovulation which are associated with endocrinal anomalies like HPRL, Hypothyroidism can be managed with proper Ayurvedic diagnosis and treatment. In the present scenario, patient was treated with an initial round of counseling followed by *Shodhana* and *Shaman Chikitsa* which is proper utilization of *Satwa-Avachaya Chikitsa* followed by *Yukti-Vyapasharya Chikitsa.*

Key words: *Agnimandya, HPRL, Rasa Dhatu, Strotoshodha*

INTRODUCTION

HPRL levels have a deleterious effect on the gonadotropic axis in both men and women, at numerous levels and regardless of the reason. The main impact is to reduce pulsatile gonadotropin releasing hormone (GnRH) secretion via hypothalamic kisspeptin neurons and potentially additional GnRH afferent neurons. Prolactin (PRL) also inhibits pituitary LH and FSH secretion, and the positive feedback of estradiol on mid-cycle gonadotropin release, leads to anovulatory cycles and, eventually, infertility.[1] Clinical data also support an inhibitory effect of high prolactin levels on the function of the corpus luteum. Thus, in hyperprolactinemic women with ovulatory cycles, it was shown that hyperprolactinemia leads to luteal phase insufficiency and low progesterone levels.[2] Elevated PRL levels have been reported under specific physiological conditions (pregnancy or breastfeeding, stress, exercise, and anxiety), pathological conditions (most commonly Prolactinomas) and medicines that are known to interfere with the neuroendocrine regulation of PRL. In addition, hormones involved in stress exert an effect on the hypothalamic-pituitary-gonadal axis (HPG). In the course of the stress reaction, among other occurrences, there is an increased secretion of cortisol (COR) and prolactin.[3] Thyroid hormones and prolactin share several elements of

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regulation and inter-related reactions. TRH promotes pituitary prolactin secretion. The smallest TRH doses capable of increasing TSH also increase prolactin levels, indicating a physiologic role for TRH in the regulation of prolactin production. Except in hypothyroidism, normal physiologic changes and aberrant prolactin secretion can be explained by dopaminergic inhibitory.[4] In Ayurveda, both disorders (HPRL and Hypothyroidism) can be correlated with *Agnimandya* (Poor metabolism) at any level. The occurrence of anovulatory cycle in this present condition can be linked to the *Artava Dushti* associated with *Rasa Dhatva Agnimandya. Deepan, Pachana, Shodhana,* and *Shaman Chikitsa* are used to treat the underlying reason i.e., *Yuktivyapyashraya Chikitsa,* while *Satwa-Avachaya Chikitsa* is used to treat stress or *Mansik Vikara* or *Shok*, which can also be the cause of the increase in production of Prolactin.

Case Report

A 40 years old female patient present with complaint of being unable to conceive with regular unprotected intercourse since 7yrs. She also complaints of heaviness of the body, bloating of abdomen, and headache before one week and during periods. She was diagnosed with PCOD in 2017 and underwent ovarian drilling. She conceived with the help of ovulation induction in 2018 which was spontaneous abortion. She also underwent various procedures (IUI, ICSI) and tried different systems of medicine for 7 years, which proved unsuccessful. Then she approached SJSACH OPD on 1/7/2023. She underwent various investigations, which revealed HPRL and Hypothyroidism. She was diagnosed with *Artava Dushti* with *Rasa Dhatva Agnimandya.* Counseling was done and *Vamana Karma* was advised to her for effective management.

History of past illness

PCOD - Resolved (2018)

CMV IGG - Positive (2018)

Herpes IGG - Positive (2018)

K/C/O - Migrain / sinusitis - 23 yrs of age.

Personal history - Appetite was normal, bowel was constipated two days prior to menses, and bladder regular with flow.

Habits - Not relevant

Menstrual History - Patient attained menarche at 13yrs of age. Nature of cycle is regular with duration of 28 days.

Number of pads used per day -

Day 1 - 2 pads

Day 2 - 4 pads

Day 3 - 3 pads

Day 4 - 2 pads

Day 5 - spotting

Dysmenorrhea - present, clots - present, White discharge - absent.

Marital History - Got married at the age of 32 yrs. (8yrs of marital life)

Coital History - 2 times per week, Dyspareunia - absent

Obstetrical History - G1P0A1

G1 - conceived with ovulation induction

A1 - spontaneous abortion within 46 days. (2018)

No any contraceptive history.

Treatment History

Table 1: History of treatment

2017	Ovarian drilling (PCOD)
2018 January February March June August	 Ovulation induction (failed) Conceived Spontaneous abortion Ovulation induction Pseudo Pregnancy
2019	IUI (3 Cycles)
2020	IVF (implant failed)
2020	Siddha treatment

ISSN: 2456-3110 CASE REPORT December 2024

General examination

The patient was moderately nourished female.

Blood pressure: 120/80 mm/hg

Temperature: 98°F

Pulse: 84/min

Respiratory Rate: 19 cycles/min.

On Examination, Pallor, icterus was absent. Central cyanosis, digital clubbing and local lymph adenopathy was absent. General and localized oedema was absent.

Systemic examination

CVS: S1 S2 Normal.

CNS: Well oriented, conscious.

RS**:** Normal vesicular breathing, no added sounds.

Dashvidha Pariksha

Prakruti - Vata + Pitta

Vikruti - Vk

Sara - Mansa

Samhanana - Madhyama

Pramana - Madhyama

Satmya - Madhyama

Satva- Madhyama

Aahara Shakti - Madhyama

Jarana Shakti - Madhyama

Vyayama Shakti - Madhyama

Vaya - Madhyama

Investigation

USG pelvis (12/6/2023) - no significant findings.

TSH - 7.280mIU/ml (11/6/2023)

Prolactin - 78.62ng/ml

HbA1C - 6.02%

Male Partner - (Age - 41yrs, occupation - IT Engineer)

Semen analysis (23/9/2023)

Sperm count - 60million/cc

Active motility - 45%

Slow Progression - 30%

Non-motile - 10%

Morphology - Normal - 45%

Abnormal - 55%

Fructose - Present

Vitality - 75%

Treatment

Table 2: Internal medicine: (For 7days)

Medicine	Dose
Mahashankh Vati	1 tab thrice a day (B/F)
Panchkola Paniye	While having thirst

Procedure

Vamana Karma:

Koshta Assessment was done - *Madhyam Koshta.*

Snehapan - Kalyanka Ghrita

Abhyanga - Mahanarayana Taila

Vamana Aushadh - Madanphala

Table 3: Procedure details

Date	Procedure	Dose
8/8/2023	*Snehapan Day 1*	38ml
9/8/2023	*Snehapan Day 2*	76ml
10/08/2023	*Snehapan Day 3*	114ml
11/08/2023	*Snehapan Day 4*	170ml
12/08/2023	*Snehapan Day 5*	230ml
13/08/2023	*Abhyanga* and *Bashpa Swedana*	*Mahanaryana Taila*
14/08/2023	*Abhyanga* and *Bashpa Swedana*	*Mahanarayana Taila*
14/08/2023	*Vaman Karma*	*Madanphala*

ISSN: 2456-3110 CASE REPORT December 2024

Table 4: Discharge Medicines

Medicines	Dose
Arogya Vardhini Vati	1BD (After Food)
Phalasarpi	½ tsp (Empty Stomach)
Sukumara Kashyam	15ml BD with lukewarm water (Before food)

OBSERVATIONS

Table 5: Comparison Before Treatment and After Treatment

Investigations	Before Treatment (11/06/2023)	After Treatment (18/08/2023)
Prolactin	78.20	46.38
TSH	7.280	5.55

Table 6: Follicular Study (1/9/2023): LMP - 22/08/2023

Day	Rt ovary
1/9/2023	Dominant follicle (8mm)
4/9/2023 (14th day)	Dominant follicle (14*14mm) ET - 12mm
6/9/2023 (16th day)	Dominant follicle - 1.7*2cm ET - 12mm
8/9/2023 (18th day)	Dominant follicle ruptured ET - 12.2mm

DISCUSSION

As stated in *Sushruta Samhita, Dosha Dhatu* and *Mala* are the main roots of the body, hence balance must be maintained to achieve a healthy state. All *Dhatu* are nourished by *Jathragni*, which generates the *Ahara Rasa*, which will nourish each *Dhatu* through the proper channel. *Agnimandya* may occur at any time as a result of *Kaphakara Nidana*, which increases *Dhatugata Mala Sanchaya* (*Ama*), which causes *Srotorodha* and impaired *Dhatu*. If there is *Agnimandya* of *Rasa Dhatwagni,* it vitiates its *Ashraya (Rasa Dhatu)* and *Upadhatu (Artava).*[5] In this present case, patient is present with the symptoms of *Agnimandya* along with *Artava Dushti*. Hence the patient is diagnosed with *Artava Dushti* with *Rasavaha Strotodushti*. According to *Acharaya Charak,* treatment principle for *Rasavaha Strotodushti* is *Langhan Chikitsa*[6] and *Langhan* includes 4 types of *Shodhana Karma (Vaman, Virechan, Nasya, Basti), Pipasa, Maruta, Atapa, Pachana, Upavasa* and *Vyayam* (according to the patient).[7] *Agnimandya* leads to the formation of *Ama* which is responsible for *Strotorodha*. So, the line of treatment for *Strotoshodhan* is *Deepan*, *Pachan*, *Shodhan* and *Shaman Chikitsa*.

Mahashankh Vati and *Panchkola Paniya* advised for the *Deepana* and *Pachana* before the procedure since assimilation of the drug is essential for it to perform its intended action, which might occur when *Agni* is optimal. *Deepan Dravya* given at the beginning of treatments enhances *Agni* by making the medicine available for it to accomplish the needed action. When the drug is administered after *Deepan Dravya*, the absorption at the cellular level increases, allowing *Dravya* to perform adequately. Although *Aama Dosha* generates obstructions in the physiological channels, Drug cannot reach its site of action; hence, a *Pachan Dravya* should be given first to release the impediment generated by digesting *Ama*. To improve the bioavailability of a medicine, *Deepan* and *Pachana* are first necessary.[8]

Ghrit has the actions of *Yogvahi*, *Agnideepaka*, *Rasayana*, *Vrishya*, *Vata-Pitta Shamaka*, and alleviates *Kapha Dosha* resulting from *Samskaranuvartana*.

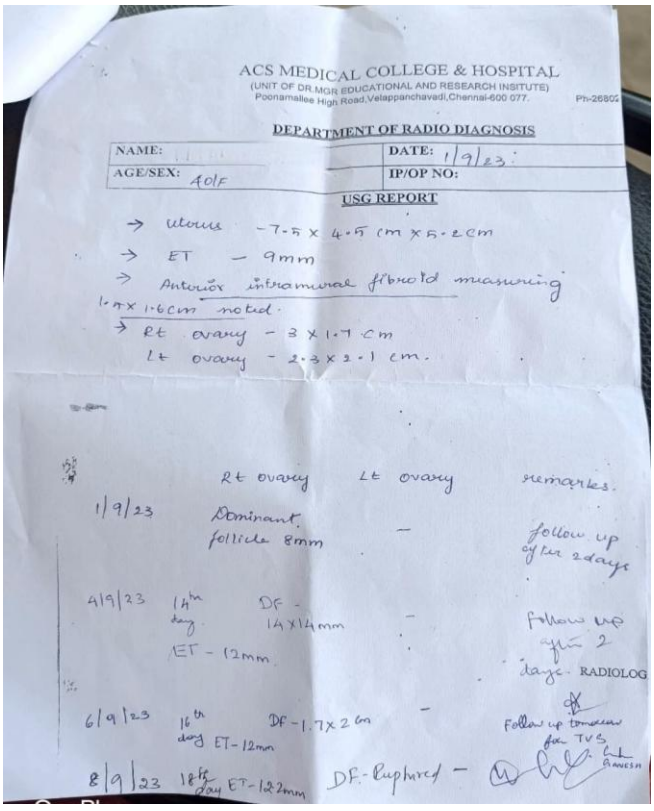
In *Kalyanaka Ghrita* majority of drugs are *Kashaya*, *Katu* and *Tikta Rasa*, *Laghu* and *Ruksha Guna*, *Katu Vipaka*, and *Ushana Virya*. These properties are *Kapha-Vata Shamak*, *Deepan*, *Pachana*, *Vrishya*, *Rasayana*, and *Yoni Doshahara*. *Haridradvaya*, *Sarivadvaya*, *Ela*, *Talisa*, *Vidanga*, *Devadaru*, *Nirgundi*, *Amalaki*, and other plants have *Dipana*, *Pachana*, and *Amadoshanashak* properties, which regulate *Jatharagni*, *Dhatvagni*, and *Bhutagni*, resulting in proper formation of *Dhatus* and *Upadhatus* (*Artava*)

ISSN: 2456-3110 CASE REPORT December 2024

and *Strotoshodhan* by removing *Ama*.[8] *Deepana* and *Pachana* properties of *Kalyanaka Ghrita* clears the channels of *Manovahasrotas*. The agitated mind can be controlled by pacifying *Vata Dosha*, thus administration of *Kalyanaka Ghrita* also helps in psychological factors.[9]

Vaman Karma is effective in alleviating *Kapha* and *Vata Doshas*. Drugs with *Kapha Vatahara, Ushna*, *Deepan Pachana, Rasayana* and *Vajikarana* characteristics may be used to treat disease. *Vamana Karma* is having the characteristics of *Kaphavrit Agnimandya Janya Vyadhi Nashak*, hence it may be effective in hypothyroidism and hyperprolactinemia.

The prolactin and TSH levels were taken after one month of the procedure (*Vaman*) which shows a remarkable reduction of the values. Follicular study shows the maturation, rupture of the dominant follicle, and Endometrium thickness. Then the patient was advised to take some medications for further management and pre-conceptual care.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DEPARTMENT OF RADIO DIAGNOSIS

NAME: DATE: 1/9/23

AGE/SEX: 40/F IP/OP NO:

USG REPORT

→ Uterus - 7.5 x 4.5 cm x 5.2 cm
→ ET - 9mm
→ Anterior intramural fibroid measuring 1.7 x 1.6 cm noted.
→ Rt ovary - 3 x 1.7 cm
Lt ovary - 2.3 x 2.1 cm.

	Rt ovary	Lt ovary	remarks
1/9/23	Dominant follicle 8mm	-	follow up after 2 days
4/9/23	14th day DF - 14x14mm ET - 12mm	-	follow up after 2 days RADIOLOG
6/9/23	16th day DF - 1.7x2 cm ET - 12mm	-	Follow up tomorrow for TVS
8/9/23	18th day ET - 12.2mm	DF - Ruptured	

Conclusion

Ovulatory factor is one of the major causes of anovulation. Endocrine disorders such as HPRL and hypothyroidism are well-known causes of infertility due to their inhibitory influence on gonadotropin production and can be managed by Ayurveda. In this present case, patient was treated with an initial round of counseling followed by *Shodhana* and *Shaman Chikitsa* which is proper utilization of *Satwa-Avachaya Chikitsa* followed by *Yukti-Vyapasharya Chikitsa*.

References

1. Mild hyperprolactinemia in a couple: What impact on fertility? Ann Endocrinol (Paris). 2022;83(3):164-167. doi:10.1016/j.ando.2022.04.002.
2. Iancu ME, Albu AI, Albu DN. Prolactin Relationship with Fertility and In Vitro Fertilization Outcomes—A Review of the Literature. Pharmaceuticals (Basel). 2023;16(1):122. doi:10.3390/ph16010122.
3. Wdowiak A, Raczkiewicz D, Janczyk P, Bojar I, Makara-Studzińska M, Wdowiak-Filip A. Interactions of Cortisol and Prolactin with Other Selected Menstrual Cycle Hormones Affecting the Chances of Conception in Infertile Women. Int J Environ Res Public Health. 2020;17(20):7537. doi:10.3390/ijerph17207537. PMID: 33081268; PMCID: PMC7588978.
4. Taylor HS, Pal L, Seli E. Speroff's clinical gynecologic endocrinology and infertility. 9th ed. Philadelphia: Lippincott Williams & Wilkins; chapter 20.
5. Sharma VB, Padhar BC, Meena HM, Mathur SK. Efficacy of Vyoshadi Guggulu and Shadushana Churna in the management of subclinical hypothyroidism: An open labelled randomized comparative pilot clinical trial. AYU. 2022;41:181-7.
6. Kashinatha Sastri PT. Charaka Samhita of Agnivesha. Sutra Sthana. 1st ed. Varanasi: Chaukhambha Sanskrit Pratishthan; 2011. Ch. 28, Ver. 25. p. 431.
7. Kashinatha Sastri PT. Charaka Samhita of Agnivesha. Sutra Sthana. 1st ed. Varanasi: Chaukhambha Sanskrit Pratishthan; 2011. Ch. 22, Ver. 18. p. 427.
8. Singh Y, Ansari A, Singh V, Parhate S, Sharma RP, Singh TR. Therapeutic potential of Kalyanaka Ghrita (polyherbal-medicated Ghrita) in purview of Alzheimer's disease: A literary review. J Drug Res Ayurvedic Sci. 2023;8:201-12.
9. Ramana GV, Yadav B, Gupta HK, et al. Clinical Evaluation of Kalyanaka Ghrita in the Management of Cognitive Deficit in Children. J Res Ayurvedic Sci. 2019;3(3):85-91.

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