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Ayurvedic Approach to Conquer Secondary Infertility with Hypothyroidism- A Case Report

Dr. Ragina A Sharma[1], Dr.Anjana Thanki[2], Prof. Shilpa B Donga[3]

[1] PG scholar, Department of PTSR, ITRA, Jamnagar.
[2] Assistant professor, Department of PTSR, MRIAS, Gandhinagar.
[3]I/C HOD, Department of PTSR, ITRA, Jamnagar.

ABSTRACT

Infertility is a disease of the male or female reproductive system defined by the failure to conceive after 12 months or more of regular unprotected sexual intercourse. In Ayurveda infertility is termed as '*Vandhyatwa*'. The factor for a healthy conception, pregnancy and delivery is mentioned as "*Garbha sambhava samagri*" (factors essential for conception) by Acharya Sushruta.[i] *Artava*(ovum) and *Shukra* (Sperm) are considered as "*Antima dhatus*". Therefor uttarotara Dhatuposhana is essential for the good quality of Artava and Shukra. A 33-year-old female patient presented to the *Streeroga* OPD at ITRA on 1st Nev. 2021, complaining of Failure to conceive, Scanty menstruation, and weight gain for 3 years. In this case the patient had the history of Hypothyroidism and Low AMH, which affect the process of metabolism which further results in improper development of follicles and anovulatory cycle leading to infertility. In this case evidences of defective *Dhatuparinama* can be visualized like irregular menstrual cycles, thin endometrium and infertility. She has been taking allopathic medicine for the same for the 6 months which was later discontinued. Ayurveda treatment including *Shodhana* and *Shamana* therapy is adopted. Patient had undergone *Virechana* karma followed by D*ashamooladi yogabasti* and *Shatapushpa Taila Matrabasti* in next cycle, On 30th Apr 2022 patient came with amenorrhea of 1 month 6 days. The outcome of the Ayurvedic intervention was the conception and on 7th dec 2022 she delivered a healthy male baby of 3.2 kg.

Keywords: Hypothyroidism, Low AMH, *Virechana, Basti,* Secondary infertility, *Vandhyatwa.*

Introduction:

Thyroid disorders were found to be the most common endocrine problems seen in the world.

In most of cases, thyroid can lead to infertility or miscarriages. It is estimated that 10-15% of married couples suffer from infertility.[ii] Secondary infertility indicates Previous pregnancy but failure to conceive subsequently. In Ayurveda infertility is termed as '*Vandhyatwa'*. Acharya Harita has mentioned 6 types of *Vandhya,* Amongest them one is the *Kakavandhya* (secondary infertility).[iii] According to Ayurvedic classics, the causes of *Vandhyatwa* are: *Yonivyapada, Artavavaha strotodushti, Yoniarsha, Manasika Abhitapa* (psychological abnormalities), *Shukra Dosha, Asruga Dosha, Ahara-vihara Dosha* (abnormalities of diet & mode of life),*Akala Yoga* (coitus in improper time), *Balasamkshaya, Jataharini ,Daivaprakopa*.[iv] According to FIGO manual causes are: tubal and peritoneal factors (25-35%), ovulatory factors (30-40%), and endometriosis (1-10%).[v] Prevelance of hypothyroidism in the reproductive age group ranges from 2% to 4%. Women with hypothyroidism may have either oligo- or amenorrhea. Any

impairment in thyroid hormone level causes impairment of foliculogenesis, which prevents the differentiation of granulosa cells and promotes apoptosis into atresia follicles, resulting in low AMH levels. Lincoln and associates (1999) found a 2% incidence of elevated thyroid-stimulating hormone (TSH) levels in 704 asymptomatic women seeking evaluation for infertility. Correction of hypothyroidism in those with ovarian dysfunction and elevated TSH levels lead to pregnancy in 64% of patients.[vi] In addition to infertility and miscarriages, previous studies observed that 20% of patient with low AMH (premature ovarian insufficiency) before the age of 40 years based on clinical and laboratory findings, tends to suffer from thyroid autoimmune disorder. AMH plays important role in the regulation of the development of the follicles. A patient with hypothyroidism, due to *Agnimandhya* there is improper formation of *Utarottara Dhatu* and *Upadhatu* which result in scanty menstruation or Irregular menses. Due to Dhatwagnimandhya *Dhatuparinama* is defective, which result in low level of AMH (diminished ovarian reserve) leads to defective folliculogenesis or Anovulation.

AIM AND OBJECTIVES:

1. To assess the efficacy of Ayurvedic medication in treating secondary infertility caused due to Hypothyroidism.

MATERIAL AND METHOD:

Case report: A 33-year-old married woman with a married life of 7 years visited the OPD of *Prasuti tantra evam Stree roga* of ITRA, Jamnagar with complaints of Failure to conceive, Scanty menstruation, and weight gain for 3 years and she had the history of Hypothyroidism and Low AMH.

History – k/c/o Hypothyroidism for 3 years (on medication thyronorm 25 mcg), No H/o DM and HTN.

Family history- No specific family history of infertility or any other disorder.

Personal history: After asking about routine lifestyle, it was found that the patient had the history of irregular dietary habits and she used to take fast food and followed a sedentary lifestyle. Had a habit of eating fast food 2-3 times in a week. Bowel habit was not regular with hard stool and occasional constipation. There was no problem with micturition. Patient had a habit of day sleep of about 1-2 hrs. in afternoon.

Menstrual history: (LMP: 02/11/2021) Patient had her menarche at the age of 13 years. She had a regular menstrual cycle with normal menstrual flow up to 20 years with an interval of 28-32 days and duration of 3-4 days for 3 years she had a complain of scanty menstruation with duration of 2 days. Bleeding was scanty with (1-2 pad/day-not fully soaked).

Obstetric history: G1P1AOL1- 3.5 yrs. old female child/ FTNVD.

ASTAVIDHA PARIKSHA*:*

Nadi: 70/min

Mutra: 5-6 times/day

Mala: Savibandha

Jihwa: Alipta
Shabda: Prakruta
Sparsha: Anushna Sheeta
Druka: Prakruta
Aakruti: Sthoola

***DASHAVIDHA PARIKSHA*:**
Prakruti: Vata-kapha
Vikruti: Vata-kapha
Sara: Madhyama
Samhanana: Madhyama
Satmya: Sarwarasa Satmya
Satva: Madhyama
Aahara shakti: Madhyama
Vyayama shakti: Madhyama
Pramana: Madhyama
Vaya- Madhyama

General examination:
Built- Obese
Respiratory rate: 18/min
B.P: 118/82 mm Hg
Pulse rate: 70/ min
Height: 150 cm
Weight: 75 kg
BMI:33.33 kg/m2
Pallor /Oedema/clubbing/cyanosis
/icterus/lymphadenopathy – absent
Tongue – uncoated

Systemic examination:
CVS: S_1S_2 heard, no murmurs
CNS: Well-oriented, conscious.
RS: Normal vesicular breathing, no added sounds

Gynecological Examination
Per vaginal:
Uterus: Anteverted- Anteflexion with normal size
Cervix: Firm, non-tender, healthy
bilateral fornixes were clear, no adnexal mass, non-tender.
Per speculum:
Cervix healthy, no discharge.

INVESTIGATION (07/12/2021)

Blood group: 'O'Positive
Hb%:10.7 gm/dl
HIV: Non-Reactive
HBsAg: Negative
VDRL: Non-Reactive
FBS: 83 mg/dl
Urine examination:
Pus cells: 1-3/ hpf
Epithelial cells-occasional/ hpf
RBCs: Nil/ hpf
HSG EXAMINATION- B/L patent tubes. (Done outside before coming to the ITRA hospital)
Husband factor- Semen Analysis -2021

Liquefication within 20 minutes
Fructose – positive
Reaction – Alkaline
Total sperm count- 60 mill/ml
Motility- Act. Motile 70 %
Slg. Motile 10%
Non motile 20%
Abnormal forms- 01%
Pus cells -absent

Special investigation: (17/12/2021)
S.TSH:**5.71ul/ml**
AMH:**0.25ng/ml**
FSH:5.16 mlu/ml
LH:13.39 mlu/ml
PRL:11.15ng/ml

USG finding:08/11/2021
Ut: AV,
ET:3.4 mm
Lt. ovary-old cyst present(34*34mm)

Ovulation Study:

Date	Day from LMP	Right ovary	Left ovary	Endomertium	Cervical mucus
12/11/21	11	-	-	4.0mm	
14/11/21	13	-	-	4.0mm	
16/11/21	14	-	-	4.2mm	Old cyst present
10/1/22	12	-	-	6.2mm	
12/1/22	14	10*10mm	-	6.4mm	
14/1/22	16	10*12mm	-	6.6mm	

14/2/22	14	14*16mm	-	6.6mm	
16/2/22	16	16*18mm	-	6.8mm	
18/2/22	18	20*20mm	-	7.0mm	Ovulation+
08/3/22	14	18*18mm	-	7.2mm	
10/3/22	16	22*20mm	-	7.4mm	Ovulation+

THERAPEUTIC INTERVENTION: In this case, *Shodhana* and *Shamana* therapy was adopted as a line of treatment. She was firstly given *Deepana*, *Pachana* and underwent *Shodhana* i.e., *Virechana* on 18/11/2021(Table.1). *Snehapana* was done with *Goghrita*, and the total *Vegas* was 16. *Samsarjana krama* was advised as per *Madhyama Shuddhi*. Next from 07/01/2022 to 14/01/2022 she underwent *Dashamooladi Yogabasti* for 8 days (Table.2). Lastly, she underwent *Shatapushpa Taila Matrabasti* for 7 days. For *Shamana* therapy tab. Thyte (Table.3), *Varunadi Kashaya* and *Kanchanara Guggulu* were advised for 5 months, oral medicines were Stop during *Shodhana Karma*.

TREATMENT PROTOCOL:

Virechana Karma:(Table.1)

Karma	Medicine name	Posology	Duration
Deepana-Pachana	*Trikatu Choorna*	3 gm, twice a day, Before meal with lukewarm water	5 days
Snehapana	*Goghrita*	1st day-30 ml 2nd day-60 ml 3rd day-90 ml 4th day-120 ml	4 days
Sarvanga Abhyanga-Swedana	*Abhyanga* with *Bala taila* *Swedana* with *Dashamoola Nadi Swedana*	-	4 days
Virechana Karma	*Trivrutadi Yoga*[vii] *(Trivruta, Danti, Triphala)*	-	1 day
Samsarjana krama			5 days.

Dashamooladi Yogabasti Ingridients: Anubhuta Yoga (Table.2)

Medicine	Dose
Makshika	60 ml
Lavana	12 gm
Sneha: Dashamoola Taila	60 ml
Kalka:Ajamoda *Mishreya* *Vacha*	30 gm (Each *dravyas* are in equal quantity (5 gm))

DRUGS	LATIN NAME	RATIO
Yashtimadhu	*Glycyrrhiza glabra)*	1 part
Shuddha Sphatika	-	1 part
Pippali *Shatapushpa* *Madanaphala*		
Kwatha: Dashamoola Kwatha	250 ml	

Tab. Thyter Ingridients: Anubhuta Yoga (Table.3)

DISCUSSION:

Conception requires a complex sequence that includes ovulation, fertilization, transport of fertilized ovum into the uterus, and implantation into a receptive uterine cavity. In today's fast world due to lack of time, sedentary lifestyle, and increasing mental stress, Infertility is emerging as a disorder affecting the social and psychological aspects of life. Thyroid disorders are prevalent in reproductive-aged individuals and affect women four to five times more often than men. In women, oligomenorrhea and amenorrhea are frequent findings. Both thyroid disorders and decreased ovarian reserve increase with aging. Autoimmune thyroid disorders have also been reported in 10 to 30% of patients with ovarian failure, suggesting thyroid disorders are associated with ovarian reserve. Subclinical hypothyroidism may also be associated with ovarian dysfunction due to diminished ovarian reserve. In addition, subclinical hypothyroidism may also adversely affect pregnancy outcomes. Primarily patient was undergone *Deepana, Pachana Chikitsa, Shodhana* such as *Virechana Karma*. *Deepana-Pachana* plays major role in *Amapachana* and *Agnidipti.* Then *Virechana Karma* done for the Strotoshodhana Purpose. *Doshas* eliminated through *Samshodhana Chikitsa* are eradicated entirely (*Apunarbhava),Virechana* also has *Raktaprasadana Karma*. It normalizes the uterine &ovarian functions by its purifying action (Bio cleansing property). Once *Shodhana* was done, *Basti Karma* was planned. *Dashamooladi Yogabasti* given for the purpose of *Garbhashayashodhana* and *Vatashamana*. It also reduces chronic inflammation. Then *Shatapushpa Taila Matrabasti is given which helps in Artavajanana,*and *Beejoutsanga*.[viii] *Abeejotsarga* (Anovulation) is mainly due to *Vata Dushti*. As the Basti is the *Pradhana Chikitsa* in *vata vikara* it definitely acts on Anovulation. Basti causes local uterine contractions which stimulate the endometrium and ovarian receptors which stimulate the HPO axis regulating in normal menstrual cycle with ovulation occur.

FOLLOW UP AND OUTCOMES:

Within 5 months of treatment, she got conceived in the month of April. Her LMP was 24/03/2022.she underwent USG on 29/04/22 and suggested that there is a single live intrauterine gestation, the yolk sac with fetal pole seen. she was underwent the regular check with medications such as Thyronorm(25 mcg), *Phala Ghrita*-2 tsp OD, and Iron-Calcium supplements. She delivered per vaginal healthy male baby of 3.2 kg on 7th dec.2022.

CONCLUSION:

The treatment of infertility is typically initiated only after a thorough investigation. The initial focus is to identify lifestyle or environmental issues that may contribute to or cause the reproductive impairment. In this study mainly *Agni Vardhaka, Shothahara, Garbhashayashodhaka* and *Vata shamaka* drugs are used. Normalizing *Agni* will help in *Uttarothara Dhatu poshana* and normalization of three *Doshas* especially

Vata Dosha regulates menstrual flow with uterine vasculature and receptibility. Thus, we can conclude that infertility due to hypothyroidism is managed by using *Shodhana* and *Shamana Chikitsa* which has helped in conception. Following a healthy regimen along with a nourishing diet.

References:

1. S Ambikadutta. Ayurveda Tattva Sandipika Hindi Commentary On 'Sushruta Samhita of Sushruta' Volume 1 Shareera Sthana Chapter 2 Verse 35 Varanasi; Chaukamba Sanskrit Sansthan, 2016 Reprint p19.
2. Howkins & bourne SHAW'S textbook of gynecology, edited by sunesh Kumar Paunbidri, and Shirish N Daftary, 17th edition, chapter 16, infertility- Male and female, page no.202.
3. Pandeyji, Editor. 'Harithasamhitha of Haritha' Trutiyasthana Chapter 48 Vandhyarogalakshana Verse1 Varanasi; Choukamba Viswabharati, 2010 p463.
4. Acharya Premavati Tewari Editor, Chapter 5 Streevandhyatwaadyaya Varanasi; Choukamba Orientalia, 2000 Edition p277 hapter 16 Infertility New Delhi; Jaypee Brothers Medical Publishers (P) Ltd, 2013 Reprint p227.
5. D.C. Dutta's Textbook of Gynecology by D. C Dutta, edited by Hiralal Konar, Sixth Edition Chapter 16 Infertility New Delhi; Jaypee Brothers Medical Publishers (P) Ltd, 2013 Reprint p229.
6. Barbara L. Hoffman John.O. Schorge, Joseph.L. Schaffer. Williams Gynecology, Reproductive Endocrinology Infertility, and The Menopause. Third Edition, Section 2 Chapter 20, 2016 p450.
7. Vaidya Yadavaji Trikamji Acharya, Hindi Commentary.On 'Charaka Samhita of Chakrapani' Chikitsasthana Kushthachikitsa Chapter 7 Varanasi; Choukamba.Sanskrit Sansthan, 2012.
8. Sri. Hema raja Sharma,editor, Kashyapa Samhita , Kalpasthana ,shatapushpashatavarikalpa,Kashi Samskrita Maala 154,Choukhamba Sanskrita Sansthan,Varanasi. sloke no.5-13.