



ROLE OF TRIVIDHA AUSHADHA IN THE MANAGEMENT OF INFERTILITY DUE TO BILATERAL TUBAL BLOCKAGE AND ABNORMAL ENDOMETRIUM RECEPTIVITY ALONG WITH THE PREVENTION OF CONGENITAL ANOMALY: A CASE STUDY

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ABSTRACT

Introduction: Infertility is the failure to naturally conceive a child even after one or more years of regular unprotected coitus. Primary infertility (absence of prior conception) and secondary infertility (infertility following at least one previous conception) are two categories under which infertility can be classified. Here, it is the case of secondary infertility caused by tubal and endometrial factors. Tubal factor and Endometrial factor come under four essential factors for conception described by Acharya Sushruta, i.e. Ritu, Kshetra, Ambu, Beeja as if the *Kshetra* is not formed correctly, it causes *vandhyatva*. In this case study, Ayurvedic management successfully treated secondary infertility caused by tubal and endometrial factors.

Main clinical finding: A married Hindu female patient of 29 years of age visited OPD of the National Institute of Ayurveda, Jaipur, on 3 March 2021 with a chief complaint of wants issue since 1-year **Diagnosis:** Her HSG scan on 25 Feb 2021 suggestive of bilateral fallopian tube blockage. Her USG scan is suggestive of a simple cyst in her right ovary of size 31x19mm and endometrium thickness of 4mm on the 12th day of menses. **Interventions:**

Treatment given was *Daivavyapashraya*, *Yuktivyapashraya* (*Ksheera basti*, *Uttarbasti* and *Yoga basti* along with oral medication), and *Satvavajaya*. **Outcome:** She conceives after taking 20 months of treatment and delivered a healthy male child of weight 3.04kg on 21 July 2023 without any congenital anomaly. **Conclusion:** This case study shows the efficacy of *Uttar Basti* for treating bilateral tubal blockage and *Ksheera Basti* for enhancing endometrial receptivity. It also highlights the significance of *Daivavyapashraya*, *Yuktivyapashraya*, and *Satvavajaya Chikitsa* in the management of infertility and the prevention of congenital anomalies.

Keywords: Tubal block, *Daivavyapashraya*, *Yuktivyapashraya*, *Satvavajaya*, *Ksheera Basti*, *Uttar Basti*

INTRODUCTION

Infertility is a widespread reproductive illness; 60–80 million couples worldwide currently suffer from infertility as per the WHO. Infertility varies across the regions of the world and is estimated to affect 8%–12% of couples worldwide. According to the International Federation of Gynaecology and Obstetrics manual (2015), the causes are peritoneal factors (35%), tubal factors (30%), ovulatory factors (20%), and uterine factors (15%). Among these, Tubal blockage is the most important causative factor for female infertility. The causes responsible for tubal blockage are – peri tubal adhesions, tubal endometriosis, Endo salpingeal damage, mucous debris or polyps within the tubal lumen, tubal spasm, previous tubal surgery or sterilisation. Uterine factors include abnormal endometrium receptivity, inadequate secretory endometrium, uterine synechiae, congenital malformation of the uterus, endometriosis, and endometritis. In the present case study, bilateral tubal blockage and abnormal endometrium receptivity cause infertility. The majority of times, unexplained infertility is associated with endometrium morphology. Implantation requires healthy endometrial receptivity and is necessary for a successful pregnancy.¹ Thin endometrial thickness causes significantly lower implantation rate (10.17%).² Thicker endometria corresponded with higher implantation rates. An endometrial thick-

ness of 7 mm or greater is generally considered adequate thickness and <7 mm has been associated with lower pregnancy rates, with almost no pregnancies observed with a lining <5 mm.³ In Ayurvedic classics, *Vandhyatva* (Infertility) is described in detail in *Harita samhita*. As per *Harita*, *vandhyatva* (Infertility) is defined as failure to achieve a child rather than pregnancy, it is because he has included *mratavatasa* and *garbhasravi* also under his classification.⁴ In the present case study patient had undergone two abortions so it can be correlated with *garbhasravi vandhya*. *Aacharya Charaka* has mentioned *trividha aushadha* (*Daivavyapashraya*, *Yuktivyapashraya*, *Satvavajaya*).⁵ *Daivavyapashraya chikitsa* involves *mantra*, *upvasa*, *mani*, *upahara* etc *Yuktivyapashraya chikitsa* involves rational thinking of purposeful employment of drug or method of treatment. *Satvavajaya chikitsa* involves control of mind by restraining the mind from desire for wholesome objects. In this case study *trividha aushadha* used to treat the disease successfully.

CASE REPORT-

A married Hindu female patient of 29 years of age visited OPD of the National Institute of Ayurveda, Jaipur, on 03 March 2021 with a chief complaint of wants issue for 1 year.

Menstrual History- The patient attained her menarche at 14 years of age.

LMP- 19-Feb-2021

M/H- 5 days/28-30 days

Detailed Menstrual History-

Pattern	Regular
Pain	Absent

Clots	Absent
Flow	Moderate
Colour	Dark Red
Pad History	
Day 1-3	3 pads/day
Day 4-5	2 pads/day

Obstetric History- G2P0A2L0

G1: Induced abortion at five and half month of GA due to fetal renal anomaly in august 2019.

G2: Spontaneous abortion at one and half month of GA in june 2020.

Past Medical History-

- ✓ H/O Taking thyroxine 37.5 mcg 2 years back.

Past Surgical History-

- Non-significant

Family History-Nil

Personal History-

- **Diet-** Vegetarian
- **Appetite** - Normal
- **Sleep** - Sound
- **Bowel Habit** - Clear
- **Micturition** – Clear
- **Addiction-** No
- **Allergic History** – Nil

Examinations-

1. Physical Examination:

G.C.	Fair
Built	Moderate
Weight	57 Kg
Height	5'2"
BMI	23
BP	120/80 mmHg
Pulse Rate	70/min
Pallor	Absent

2. Systemic Examination:

Respiratory System	Air entry bilateral equal
Central Nervous System	Patient was conscious and well oriented to time and place.
Cardiovascular System	Auscultation: Normal Heart Sounds

Diagnostic Assessment:-

Laboratory Investigations:

- X- ray HSG: Her X- ray HSG report done on (25.02.2021) was suggestive of –
 - Bilateral Fallopian Tube blockage.
- USG done on (03-08-2021) was suggestive of -
 - Simple cyst in right ovary of size 31x19mm
 - Endometrium thickness is 4mm.

Therapeutic intervention:

Date	Investigations	Treatment Given
03 March 2021	HSG on 25 Feb 2021: bilateral tubal blockage	Oral medication: 1. <i>Sitopladi churna</i> 3gm BD 2. <i>Indukantha ghritha</i> 10 ml BD with milk 3. <i>Arbudahara kwatha</i> 10 ml BD empty stomach 4. Syrup M liv 2 Tsf BD 5. <i>Uttar basti</i> with <i>Apamarga kshara tail</i> & <i>Shuddha bala tail</i> . <i>Anuvasana basti</i> with <i>triphala tail</i> , <i>Aasthapan basti</i> with <i>Arbudahara kwatha</i>
01-09-2021	HSG on 05 Aug 2021 Right tubal patency observed with delayed spill. Pelvic adhesions. Left fallopian tube ampullary blockage.	• Previous Medication + 5. <i>Shatavari churna</i> 2gm <i>Ashwagandha churna</i> 2 gm <i>Gokshura churna</i> 2 gm <i>Yashtimadhu churna</i> 2 gm <i>ksheerapaka</i> 6. <i>Uttar basti</i> with <i>Apamarga kshara tail</i> & <i>Shudha bala tail</i> . <i>Anuvasana basti</i> with <i>triphala tail</i> , <i>Aasthapan basti</i> with <i>arbudahara kwath</i>
06-11-2021	6 Oct 2021: TSH 1.77 microIU/ml HIV : NR HBsAg : NR VDRL : NR Prolactin : 5.08ng/ml	<i>Virechana karma</i>
1-12-2021		<i>Matra Basti</i> with <i>Dashmoola taila</i>
16-2-2022	HSG on 30 Dec 2021 Bilateral Tubal patency observed. Pocketed spill seen on left side s/o Pelvic adhesions.	Oral medication: 1. <i>Stanyashodhaka gana kwatha</i> 20 ml BD 2. <i>Pushpadhanva rasa</i> 500mg 3. <i>Chandraprabha vati</i> 500 mg BD 4. Syrup M Liv 2 TSF BD 5. <i>Uttar basti</i> with <i>Apamarga kshara tail</i> & <i>Shuddha bala tail</i> . <i>Anuvasana basti</i> with <i>triphala tail</i> , <i>Aasthapan basti</i> with <i>Arbudahara kwath</i>
03-08-2022	USG on 14 July 2022 Left ovary adherent to the post. wall of uterus. ET: 6 mm	Above Mediation + <i>Yoga Basti</i> with <i>Lekhaniya mahakashaya</i> with <i>gomutra</i> <i>Anuvasana</i> with <i>triphala tail</i> . + <i>Uttar basti</i> with <i>apamarga kshara tail</i> on alternate days.
31-10-2022		Above Mediation + <i>Ksheera basti</i> with <i>Bala</i> , <i>Satavari</i> , <i>Ashwagandha</i> , <i>gokshura</i> <i>Uttar basti</i> with <i>shudha bala tail</i>
14-12-2022	USG on 8 Nov 2022 Normal Study ET:8 mm USG on 13 Dec 2022 Single live foetus of 7 week, FHR:147 bpm	

Nidana parivarjana : Along with the medication *Nidana parivarjana* also done, in which taking of *Pathya ahara* and *Vihara* & avoiding of *apathya ahara* and *Vihara* was advised. She was asked to consume lukewarm water, to take *saindhava lavana* in place of normal salt and avoid consuming spicy diet & diet that is difficult to digest, avoid intake of curd and day sleep and *Ratrijagran*. Advice to take *patola*, *methi*, *palak*, *Karela*, *moong dal*, *Munakka*, fruits and Barley daliya or any preparation of Barley. Follow *Rajaswalacharya* during first 3 days of menses. **Effect on Bilateral tubal blockage:** Both the tubes open successfully after giving *Uttar basti* with *Apamarga kshara tail* & *Shuddha bala tail* along with oral medications. **Effect on endometrium thickness:** Endometrium thickness is 6mm (on 14th day of menses) before giving *ksheera basti* which is increased to 8 mm (on 14th day of menses) after giving *ksheera basti* along with oral medication. **Prevention of Congenital Anomaly:** As the patient had obstetric history of induced abortion at five and half month of GA due to fetal renal anomaly. So, for the prevention of congenital anomaly, she has given oral medication such as *Stanyashodhaka gana kwatha*, *Arbudahara kwatha*, *Chandraprabha vati* and Syrup M Liv. After that she conceived and delivered a healthy male child of weight 3.04kg on 21 July 2023 without any congenital anomaly.

DISCUSSION

TRIVIDHA AUSHADHA:

Daivavyapashraya chikitsa :

It involves *mantra* (positive energy based sounds, removing negative thoughts from mind), *aushadha*, *upavasa* (Fasting gives control to sense organs and mind), *mani* (constant touch to skin acts on *dushta graham*), *Upahara* (Giving gives happiness to mind, acts as *tarpana*), *mangala bali* (giving *vastra*, *vasa*, *mamsa*, *ksheera* etc depending upon the days of *grahas* gives satisfaction), *homa* (*ghrita*, *guggulu*, *chandana* purifies environment), *Swastyayana* (*punya* and *Mangalakara*), *pranipata* (by *pramana* there will be *dukha shamana*) *Niyam*, *Prayaschitta* (indulging in spiritual disciplines, duties or worship), *yatragamana*

(pressure points activates nerves).⁶ In the present case study *mantra* like *garbhadhana mantra*, *gayatri mantra* advised to chant and listen.

Yuktivyapashraya chikitsa :

Yukti refers to application of reason to diagnose and treat disease based on rational thinking of purposeful employment of drug or method of treatment. As per *Acharya charaka*, *Yuktivyapashraya chikitsa* is “*punarahara aushadha dravyanam yojana*”⁷, which means judicious use of *ahara* and *aushadha*. In the present case study patient was advised to follow *rajahswala charya* and to take *pathya ahara* like *moon-ga dala*, *patol*, *karela*, *palaka*, *munnaka*, any preparations of barley and fresh fruits etc.

Uttar basti :

Apamarga kshara tail - In *Bharata Bhaishajya Ratnakara*, *kshara-tail* is mentioned for *stree roga adhikar*⁸ and in *Chakradutta*, *apamarga* is mentioned as *vata-kapha shamaka*, *tridoshagna*, *tikshna*, *ushna sukshma* in properties.⁹ Tubal blockage can be considered as a *vata-kapha* dominated *tridoshaja* condition. Hence *apamarga kshara tail* is used in this case study, so that it could remove blockage by reaching up to the minute channels.

Bala tail - *Vata* regulation is the basic principle of treatment for all gynaecological diseases as mentioned in ayurveda classics. *Acharya sushruta* mentioned *bala tail* as *Sarvavata Vikaranutta*.¹⁰ and *garbhaarthani* (woman who wants to conceive) in the benefits of *bala tail*.¹¹ So *bala tail* is used for *uttar basti* as it pacifies all *vata* disorders and appropriate to use for infertility.

Ksheera basti :

Ksheera basti was administered with *Bala*, *Satavari*, *Ashwagandha* and *gokshura*. Endometrium thickness depends on *Rasa dhatu*. *Madhura rasa*, *Brimhana* and *balya* action help for the formation and proliferation of endometrium tissues.¹² *Ksheera basti* by its *brumhana*, *balya*, *pushtidayaka* and *vata anulomaka*¹³ property increases endometrium thickness and receptivity. *Bala* having *madhura vipaka*, *sheeta veerya*, *vata pitta shamaka*¹⁴ and *jeevaniya*, *brumhana*, *balya*, *rasayana*, *prajasthapana*, *shothaghna* properties. *Satavari* having *tikta rasa*, *sheeta veerya*,

vata-pitta shamaka properties.¹⁵ Ashwagandha having tikta, Kashaya rasa, vata shamaka and balya, shothahara, kshayahara properties¹⁶. Gokshura having madhura vipaka, sheeta veerya and brumhana, vrashya properties. Combined effect of all the drugs is vata pitta shamaka as the root cause of infertility due to endometrial factor is vitiation of vata and pitta dosha. As thin endometrium is caused by ruksha guna of vata dosha and ushna, tikshna guna of pitta dosha.¹⁷ In addition Vata performs proper function by its appropriate regulation and initiation of normal reproductive physiology, causes HPO axis to work normally, subsequently causes the process of cell regeneration from basal layer of endometrium. Besides its pitta is responsible for the conversion of all hormones due to its paka action and when the adequate level of hormones present kapha performs its function by proliferation and secretory changes in endometrium to make it receptive for implantation¹⁸.

Further as the satavari having estrogenic properties, estrogen induces proliferation of functional layer of endometrium and stimulates progesterone receptors on endometrium. This provides an optimum environment for the implantation and growth of embryo.

Stanyashodhaka gana kwatha , Arbudahara kwatha, Chandraprabha vati, Syrup M Liv :

As the patient had obstetric history of induced abortion at five and half month of GA due to fetal renal anomaly. In Ayurveda, kidney refers to as Vrikka, which comes under matrija bhava¹⁹ and as per Sushruta, vrikka of garbha is produced from the sara of rakta and meda²⁰. Further Mula of raktavaha srotas are yakrita, pleha and mula of medavaha srotas are vrikka, vasa²¹. So, the drugs which act on yakrita, pleha, vrikka, vasa are useful.

Stanyashodhaka gana Kwatha drugs such as shunthi²², guduchi²³, kiratatikta²⁴, katurhini²⁵ possess hepatoprotective, anti-inflammatory, antioxidant properties. Arbudahara kwatha drugs such as kanchanara²⁶ possess antioxidant, antihyperlipidemic, antioxidant, anti-inflammatory, nephroprotective, hepatoprotective properties²⁷ Varun possess anti-inflammatory, hepatoprotective, antioxidant activities²⁸. Chandraprabha vati drugs possess antioxidant,

anti-inflammatory, nephroprotective properties.²⁹ Thus due to these properties of the oral medications congenital anomaly prevented effectively.

Satvavajaya chikitsa

It is a nonpharmacological approach equivalent to modern psychotherapy. Satva means manas and avajaya means to overcome. As per Acharya Charaka, satvavajaya punaha ahitebhyo arthebhyo mano nigraha³⁰, which means control of mind by restraining the mind from desire for unwholesome objects. Thus, it includes all the methods of Manonigraha and Astanga yoga.³¹ In the present case study Satvavajaya chikitsa adopted in form of yogic procedures such as Asana, Pranayama, Chanting etc.

CONCLUSION

In this case patient had bilateral tubal blockage and abnormal endometrium receptivity. She also had the obstetric history of induced abortion at five and half month of GA due to fetal renal anomaly. Patient was administered the treatment for 20 months. Uttar basti successfully opens the bilateral tubal blockage and ksheera basti successfully enhances the endometrium receptivity. Endometrium thickness increased from 6mm to 8mm on 14th day of cycle. Also, congenital anomaly prevented with the use of oral medications. From this case study it can be inferred that Davavyapashraya, Yuktivyapashraya (Ksheera basti, Uttarbasti and yoga basti along with oral medication), Satvavajaya chikitsa was found to be effective in the management of infertility and in the prevention of congenital anomaly. The pregnancy was carried till term without any antepartum, intrapartum and postpartum event and she delivered a healthy male baby of weight 3.04kg on 21st July 2023 without any congenital anomaly.

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