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Management of *Bandhyatava* (Infertility) by *Lashuna Kalpa*: A Case Report

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ABSTRACT

Background: Infertility is one of the major issues which has altered the mankind for lack of conception due to stressful work environment, hormonal imbalance, genetic factors, unhealthy changing lifestyle, anxiety resulting in massive personal suffering and psychosomatic distress to the patient. Classical *Ayurvedic* texts, *Charaka Samhita*, *Sushruta Samhita*, *Rasaratna Samucchya*, *Harita Samhita* have described types of *Bandhyatva*. *Acharya Sushruta* described four essential factors i.e. *Ritu*, *Kshetra*, *Ambu*, *Beeja* for conception. *Bandhyatva* (Infertility) refers to the biological inability of a woman of reproductive age to conceive and also the state of woman who is unable to carry pregnancy to full term. Here a case study of patient suffering from infertility has been presented. **Aim & Objective:** The present study is an effort to understand the disease according to Ayurvedic principles & to evaluate the role of safer and cost effective Ayurvedic management modalities in infertility. **Materials & Methods:** Patient with age 24 years with 4 years active married life having normal menstrual cycles. The probable cause was found after routine examinations of both partners having recurrent genital tract infections and reduced sperm count & quality in husband visiting the OPD of PTSR of RGGPGA College, Paprola. *Lashuna kalpa* was administered for 9 days to both the partners after clearance of menses of female. **Results:** Patient had conceived after the use of *Lashuna Kalpa*. **Conclusion:** Hence it has been concluded that *Lashuna kalpa* can be practiced as a line of treatment for infertility by Ayurvedic gynecologists which needs further research in large sample to establish.

Key Words *Bandhyatava*, *Infertility*, *Lashuna kalpa*

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INTRODUCTION

God has given this precious gift to the woman and one of the noblest and devout of all the human powers that is the work of reproduction. In the heart of every woman deep down motherhood is one of the most cherished desire and not able to achieve conception is known as Infertility. In

Ayurveda, infertility can be correlated with *Bandhyatwa* or *Bandhya yonivyapada*. Failure to conceive within one or more years of regular unprotected coitus is defined as infertility¹. In the current scenario of massive advancements in the field of medicine and technology, infertility is the problem that has been continued since ages. As a



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well-known social stigma is attached to it, infertility does not directly affect the health but has a psychosomatic effect on the patient.

According to WHO, positive reproductive health of a woman is a state of complete physical, mental and social well-being and not merely absence of disease related to reproductive system and functions. *Acharya Charaka* has explained the woman is the origin of progeny².

Acharya Harita has defined *Bandhyatva* as failure to achieve a child rather than pregnancy, because he has included *Garbhasravi* (having repeated abortions) and *Mritavatsa* (having repeated stillbirths) also under the classification of *Vandhya*³.

Acharya Sushruta has mentioned *Ritu* (Fertile period), *Kshetra* (Reproductive organs), *Ambu* (proper nutrition) and *Beeja* (*shukra-shonita*) four factors responsible for the formation of fetus along with the normal functioning of the *Vata*. Any abnormality in these factors may lead to infertility⁴.

Acharya Charaka and *Vagbhata* have referred *Bandhya* as the result of *Pradushta Garbhasaya Bija Bhaga* of *shonita*^{5,6}, (A.S.2/48). *Sushruta*, *Madhavkara* have quoted *Bandhya* in *Vimsati Yonivyapat*^{7,8}. *Acharya Kashyapa* has mentioned *Bandhyatva* as one of the 80 disorders of *Vata*⁹. While mentioning *Jataharinis*, *Acharya Kashyapa* has quoted one *pushpaghani* having useless *pushpa* or menstruation (no conception) and certain others characterized with repeated expulsions of fetuses of different gestational periods. As in all these conditions woman is not

able to get a child, thus can be included under infertility¹⁰.

CASE STUDY

A 24 years old married woman with her husband aged 32 years reported the Prasutitantra and Streeroga outpatient department (OPD) with the complaint of not able to conceive even after trying for 4 years of unprotected sexual intercourse. On enquiry she told that she is having the problem of white discharge per vaginum on and off since 2 years. She had taken a lot of allopathic medicine for the same, still recurrence was there. During her first visit to PTSR OPD, she was advised routine hematological and urine examination along with Pap smear. All her routine examinations were within normal limit. But Pap smear report showed *Trichomonas vaginitis* (Fig.2).

Semen analysis of her husband was advised that

SEMEN ANALYSIS		
TEST	RESULT	NORMAL VALUE
Gross Examination		
Quantity	2ml	
Colour	Milky White	
Reaction	Alkaline	
Liquifaction Time	10mts.	
Microscopic Examination		
Count	50% million/ml	
Active	5-10	
Sluggish	30-40	
Dead	10-20	
Pus Cells	Nil	

Technologist

Figure 1 Semen analysis report of husband



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showed lower sperm count and reduced active motility of spermatozoa (Fig.1). She had no previous surgical illness. Menstrual history revealed normal cycles. No any abnormality was found in the coital history and had not taken any contraceptive measures. Probable cause behind infertility that comes out after getting reports of routine investigations of both partners seems to be cervical mucus hostility due to recurrent genital tract infections in female and reduced sperm count and quality in male.

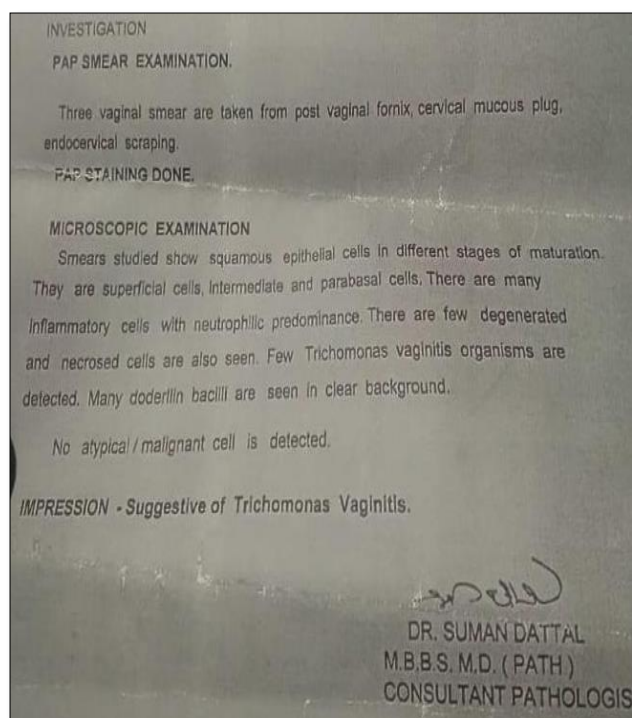


Figure 2 Report of PAP Smear

On general examination, no systemic disease detected in both partners. Prakruti assessment revealed she was having kapha vata prakruti. Her husband was having vata pitta prakruti.

MENSTRUAL HISTORY

Menarche – At the age of 13 years

Menstrual history revealed normal cycles having duration of 3-4 days and interval of 30-32 days without any associated pain, smell and clots during menstrual period.

LMP was found to be on 24-01-2021

CONTRACEPTIVE HISTORY

Nil

FAMILY HISTORY

No family history of DM, HTN, TB and thyroid dysfunction. No history of exposure to radiation, any toxin or chemical agent.

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cervical mucus hostility due to recurrent genital tract infections in female and reduced sperm count and quality in male.

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EXAMINATION OF PATIENT

Table 1 General Examination & P/S-P/V findings

PARAMETER	RESULTS
Weight	47kg
Height	160cm
BMI	18.3kg/m ²
BP	110/68 mm of hg
Pulse Rate	88 bpm
Breast Examination	NAD
P/A	Soft, non-tender
P/S	Cervix normal size, regular, thick white discharge present, congestion around os present.
P/V	Uterus- AV, normal size, mobile, non- tender, fornices- clear, non-tender

Table 2 Ashtavidha Pariksha

PARAMETER	RESULTS
Nadi	88bpm
Mala	Once a day
Mutra	3-4 times/day , peetabh shwet varna
Jivha	Anavritta
Shabda	Spashta
Sparsha	Anushna sheet
Druk	Nirmal
Akriti	Madhyam

Table 3 Dashvidha Pariksha

PARAMETER	RESULTS
Prakruti	Kapha Pradhan vata
Vikriti	Artavavaha srotas vikriti
Sara	Raktasara
Samhanan	Madhyam
Praman	Madhyam
Satmya	Mishrit
Satva	Madhyam
Ahar Shakti	Madhyam
Vyayam Shakti	Madhyam
Vaya	Yuvavatha

INVESTIGATIONS

Table 4 Semen analysis report of husband

PARAMETER	RESULTS
Total sperm concentration	50 million/ml
Active	5-10%
Sluggish	30-40%
Dead	10-20%
Pus cells	Nil
Epithelial cells	Nil

INVESTIGATIONS OF PATIENT

Table 5 Investigations carried out

PARAMETER	RESULTS
Blood group	B positive
Hb	12 g/dl
RBS	98 mg/dl
TSB	0.6mg/dl
DSB	0.3mg/dl
SGOT	20 IU/L
SGPT	22IU/L
B. Urea	23 mg/dl
S. Creatinine	0.7mg/dl
S. Uric acid	3.3mg/dl
BT	1min45sec
CT	6min45sec
TSH	1.58uIu/ml
HIV	Negative
HBsAg	NR
VDRL	NR



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Pap Smear- Showed Trichomonas
Vaginitis

USG

Showed normal sized uterus, homogenous echotexture and anteverted. Both ovaries are normal in size, shape and echotexture. Graffian follicular study showed ovulatory cycle.

TREATMENT PLANNED

As patient was suffering from Trichomonas vaginitis and having history of recurrent infection. At first treatment to cure infection was planned.

- *Pushyanug Choorna* 2gm
- *Kukutandtwak bhasama*- 250mg
- *Muktashukti pishti*- 250 mg
- Combination of all these three drugs given twice daily for 15 days
- *Anupana- Tandulodaka*
- *Udumbara sneha pichu* for local application for 15 days.

After 15 days both the partners were advised to take Lashuna kalpa simultaneously after the clearance of menses of female.

LASHUNA KALPA (Ka.Sa.kalpasthanana)¹¹

DOSE : *Lashuna kalpa* is given according to *Jatharagni bala, Kala and Satmaya*

Avara Matra : 4 pala or 50 cloves in number
Madhyam Matra : 6 pala or 60 cloves in number
Uttam Matra : 8-19 pala or 100 cloves in number

Contraindication- In *pitta and rakta* disorders *lashuna kalpa* is avoided.

Season for use of *Lashuna kalpa- Paush, Magha* (December to February) and *Chaitra, Vaishakha* (March to May)

DOSE GIVEN TO THE PATIENT: *Uttam Matra* – 90-100 number (In the month of *Chaitra*)

Route of administration – Oral

Mode of administration – Kalpa form - Starting from 2 cloves gradually increasing day by day then after 32 cloves reduce the dose gradually again up to 2 cloves. (2-4-8-16-32-16-8-4-2). By following above protocol kalpa completed in 9 days.

Purva karma- After full night sleep patient is advised to take bath with luke warm water then doing snehana with Phala ghritta 10 gm orally advised to sit in comfortable position.

Pradhana karma- After frying the cloves of *lashuna* in go ghrita powder of *Dalchini, Tejpatra, Shunthi, Maricha, choti Ela, Jayaphala* and Rock salt is sprinkled over it. It is consumed by patient in kalpa form as mentioned above.

Pashchata karma- After consuming *lashuna*, luke warm water should be used as *anupana*. At the time of consumption of higher dose of *lashuna* warm water could be used in between. After that light diet containing wheat bread, rice, *moong dal, bathua ka shaak*, lemon prickle or bamboo prickle is advised. After completion of *lashuna kalpa*, when patient started taking normal diet *mridu virechana* with *trifla ghritta* 10 gm daily given to the couple. Luke warm water was used as *anupana* of *trifla ghritta*.

Pathya apathya during *lashuna kalpa* use was detailed to the couple as follows-

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Pathya (Do's) –

1. Use of luke warm water medicated with *Nagarmotha* and *shunthi* for drinking.
2. Use of meat soup medicated with *Anaar dana*, *amla*, and condiments.
3. Milk
4. Go ghritta

Apathya (Don't s)-

1. *Muli*, *Ikshu vikara like guda*, *sharkara* etc.
2. *Viruddha ahara*, *abhisyandi ahara*
3. *Diva svapana*, *ratri jagrana*, *vyayaam*
4. Use of cold articles
5. *Mansik abhigata* as grief, anger etc.

6. *Maithuna*

On next month when her menses started on 26-3-21 she was advised USG for graffian follicular study from 8th day of menses and couple was advised to try for conception in fertile period supported by follicular study day to day basis. Along with following treatment was prescribed to couple –

- *Pushpadhanva Ras* 250 mg bid
- *Cap Shatavari* (*Shatavari* extract 250 mg) 2 bid

FOLLICULAR STUDY: started from 8th day (3-4-21) of menstrual cycle -

Day of Ovulation	Right Ovary	Left Ovary	Endometrial Thickness	Free Fluid
8 th	No dominant follicle	14x10 mm	6mm	Nil
10 th	No dominant follicle	16x13mm	6mm	Nil
12 th	No dominant follicle	No dominant follicle	8mm	Mild free fluid seen

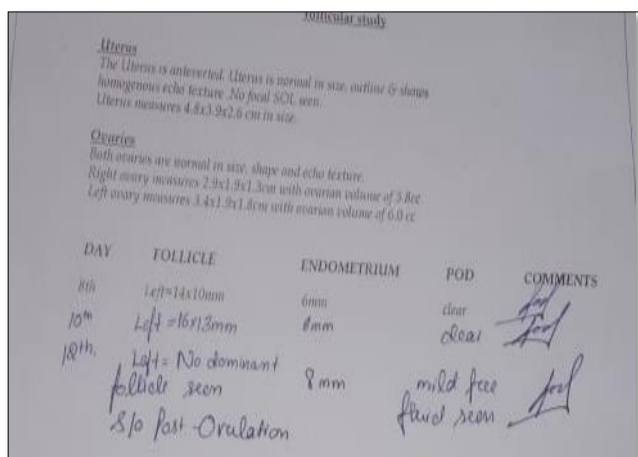


Figure 3 Report of Follicular study
RESULTS OF SONOGRAPHY AFTER TREATMENT (June 3,2021)

A single live Intrauterine Pregnancy seen with gestational sac.

Gestational sac appears normal.

Cardiac activity and fetal movements are positive.

FHR -179bpm

GA from LMP – 9weeks 5days

CRL- 9 weeks 6 days

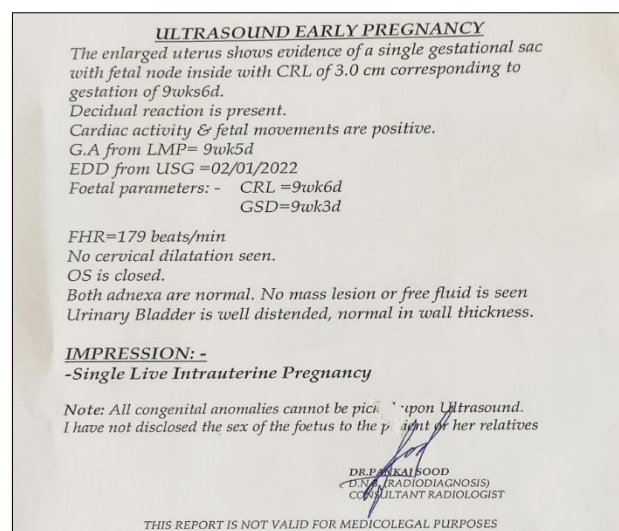


Figure 4 Ultrasonography report after conception
DISCUSSION



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There is predominance of *Vata dosha* in *Vandhyatva*. As *Acharya Vagbhata* mentioned '*Lashunah Prabhanjanam*'. *Lashuna* is used as *Rasayana*, clears the channels (*Srotas*), produces *Shukra* (sperm and spermatic fluid), increases the sperm count and sperm motility (*Vrushya*) and produces *Shonita* (ovum and ovarian hormones), *Garbha* and nourishes the breast. The aphrodisiac action of *Lashuna* has been mentioned in *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Sangraha*, *Kashyapa Samhita* and *Bhavapraksha Nighantu*. *Acharya Vagbhata* considered *Lashuna* as best among all the *Vatahar dravyas* and also has described the role of *Lashuna* as a *Rasayana* in the treatment of *Vata Avaranas*.

Garlic has been regarded as fertility enhancer since ages. As it contains selenium and Vit B6 which is responsible for properly shaped sperm and to maintain sperm count, also helps prevent chromosomal breakage and is responsible for formation of Testosterone and also supports ovulation in females respectively. In this case, on thorough evaluation of couple the cause of infertility was elicited as chronic trichomonas vaginitis in female as chronic infections alter the quality of cervical mucus. That is why at first treatment to cure vaginitis by certain time tested ayurvedic formulations was planned to counter the unexplained reason of infertility due to recurrent vaginitis. Male partner is having marginally low sperm count and quality of sperms was poor as only 5-10% sperms were actively motile. *Lashuna kalpa* was planned for the couple due to above mentioned qualities of *Lasuna*. Moreover, time

period in which couple visited the hospital was favorable along with other factors related to patient like *jatharagni*, *satmya* etc. In the menstrual cycle of female in which conception was planned couple was further supported by giving *Pushpdhanva ras* and *shatavari* extract, both drugs are having excellent effect on infertility.

RESULTS

The patient conceived after the use of *Lashuna kalpa* by the couple (Fig. 4). The patient is having ongoing pregnancy supported by ultrasound report and regularly visiting RGGPGA College, Paprola, Himachal Pradesh for antenatal checkup. Few other cases of infertility were also managed successfully by the use of *Lashuna kalpa*. Thus, conclusion is that judicious use of *Lashuna kalpa* by considering the *satmya*, *prakruti*, *desh*, *kala*, *jatharagni* etc is miraculous in managing the cases of *bandhyatva* (infertility).



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