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Case Report

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# MANAGEMENT OF PRIMARY INFERTILITY THROUGH **AYURVEDA - A CASE REPORT**

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#### ABSTRACT

Infertility can be considered as a major health care problem that can have drastic effects on couple's lives. Infertility is proven to be the most stressful experience with various psychological damage. Infertility can be manifested either as the inability to become pregnant, inability to uphold a pregnancy and inability to continue a pregnancy till term. There are various causes of infertility. In most of cases these three major causes of infertility are seen, including - male factor, ovulatory dysfunction or Tubal-peritoneal disease. A couple with married life of 3 years and wanting to conceive since 2 years visited

the OPD of RGGPGA College, Paprola, HP. Couple was already taking treatment for primary infertility from some other institution without any results. Wife was k/c/o Hypothyroidism with PCOS while husband was having unresponsive semenogram report to medical management. A treatment protocol including Sanshodhan karma was planned for them. In male, treatment planned was - Yoga basti (anuvasanabasti with Balaashwgandhatail, niruha with Vidharigandhadiniruhbasti) and nasyakarama (Shodhannasya with Trikatuchurna and Nasya with Anu tail). In female, treatment protocol was- VirechanKarma with Trivritaadi yoga, Anuvasanabasti with Ksheerbala tail, Niruhabasti with Palashadikwath, lekhanabasti with Triphalakwath and Uttarbasti with Phalkalyan ghrita. After shodhankarma, the couple conceived spontaneously. There was no adverse effect observed during the treatment.

**KEYWORDS:** Infertility, Virechana karma, Niruhbasti, Lekhnabasti, Anuvasanabasti, Uttar basti, Nasya karma.

### INTRODUCTION

Infertility is the inability to conceive children after one year of unprotected intercourse (and there is no other reason, such as breastfeeding, postpartum amenorrhoea). Primary infertility is infertility in a couple who have never had a child .Secondary infertility is absence of a live birth for woman who desires a child and have been in a union for at least 12 month since last live birth, during which they did not use any contraceptive. The major cause of infertility include ovulatory dysfunction (20-40%), tubal and peritoneal pathology(30 -40%); and male factors (30-40%). According to Ayurvedic prospective Vandhyatva /infertility is not an independent disease rather a cardinal feature of so many diseases. Proper time of menstrual cycle and ovulation (Ritu), healthy status of reproductive organs (Kshetra), nutritional status of mother (Ambu) and sperm & Ovum (Beeja) are considered as prime requisites for conception and healthy progeny. In Sushruta Samhita, Vandhyatva has been included among twenty yonivayapada. Acharya Charak and Vagbhatta have referred vandhyatava due to abnormality of beeja, first time Acharya Harita has classified vandhyatava in detail. Acharya Charak has explained that "The woman is the origin of progeny" (C.Chi.30/5). He further explained that *vayu* expels *sukra*, destroys *Rajas* resulting in infertility.

## **CASE REPORT**

A 26year old nulligravida female patient with married life of 3 years and wanted to conceive since 2 years. Patient was obese and was already taking medications for infertility from some other institution. She visited us for not getting results despite of treatment there. Patient has undergone investigations like USG, LH, FSH, serum Prolactin, TFT, RBS, follicular study; all reports were within normal range but USG finding shows Right ovarian simple cyst measuring 3.4X2.9cm with polycystic pattern in left ovary. She was taking medications for PCOS. She was k/c/o hypothyroidism and taking tab. thyroxine 12.5 mcg since 3 months. Her thyroid profile was within normal range under medication. Her menstrual cycle was irregular with oligomenorrhoea. On general physical examination and systemic examination -no pathology detected.

<sup>\*</sup>Married Life -3 years.

	Before treatment	After treatment
Duration	4-5 days	4-5 days
Interval	70-90 days	30-35 days
Amount	Moderate	Moderate

<sup>\*</sup>Menstrual History:

<sup>\*</sup>Age of Menarche -13 years.

Foul smell, clots,p	ain Not present	Not present
1 3 661 5111-111, 013 65 , 5	1 100 51050110	1,00 01000110

Contraceptive history: Nil

Cardio vascular system: Heart sounds  $(S_1S_2)$ : Normal

No added sounds H.R.- 70/min.

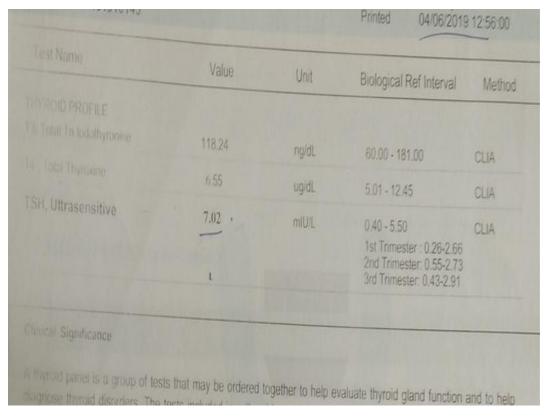
**Respiratory system:** B\L clear, air entry adequate

**GIT system:** Soft, non-tender, no organomegaly was detected.

## **Investigations**

Date	Fsh	Lh	Sr.prolactin	Vdrl	Hbag	Hiv	Rbs
29/5/201	3.09	4.96	0.020ng /ml	Non	No	Non	80mg/dl
	miu/ml	miu/ml		Reactive	Reactive	Reactive	

TFT: Be	fore treatment	TFT: After treatment			
T3	118.24ng/dl	T3	1.31ng/dl		
T4	6.55ug/dl	T4	10.22ug/dl		
TSH	7.02UI/ml	TSH	3.39 UIu/ml		



**TFT before T/t on04/06/2019** 

A/c Status : P Ref By : WAL	IA LAB	Report Status :	Final
Test Name	Results	Units	Bio. Ref. Interval
THYROID PROFILE, TOTAL, SERUM			
(Chemiluminescent Immunoassay) T3, Total	1.31	ng/mL	0.70 - 2.04
T4, Total	10.22	ug/dL	5.74 - 13.03
	3.39	uIU/mL	0.550 - 4.780

# TFT after T/t on10/01/2020

AGE/SEX REFERRED BY DATE	1 1 1	23 YRS/F GAC PAPROLA 03/06/2019
	IND WHOLE AB	
LIVER- Liver is normal in size,	outline and show	vs homogenous echo pattern. No focal lesion
or mass lesion is seen. Intrahepa	tic bihary radical	ls are not dilated. physiologically, shows smooth walls and
lumen is echofree. No calculus/r	nase legion geen	CR well thickness is normal
PORTA: - CBD not dilated in t	upper traceable pe	art. Portal vein is normal in calibre.
PANCREAS: - Pancreas is obse	cured by overlyin	g bowel gases and cannot be assessed.
SPLEEN: - Spleen is normal in	size, outline and	echo texture.
KIDNEYS:-		
		ttern. CMD well maintained. It shows p/o
		calyx. No hydronephrosis is seen.
visualized. No hydronephrosis i		tern. CMD well maintained. No calculus
		ormal in distensibility, normal in wall
thickness and lumen is echo free		
No evidence of significant retrop		
UTERUS: - The Uterus is ante	verted. Uterus is	normal in
size, normal in outline & shows	homogenous ech	io texture. No focal
SOL seen.		
Endometrium is 7mm and centr	ral.	CONTRACTOR CONTRACTOR
OVARIES:-Both ovaries are no	rmal in size, nor	mai in snape.
Multiple small follicles are seen	in Left ovary sno	owing pregommant
peripheral pattern of distribution	n .	1v2 9 cm
Right ovary shows p/o simple cy Cul-de-sac is clear.	ist measuring 9.5	TAZIZ LIII.
Cui-ae-sac is cieur. Both adnexa are normal .No ma	es lesion seen	
IMPRESSION: -	33 1031011 300111	
Calcified concretion in right	kidneu	0.1
Right ovarian simple cyst		
Polycystic pattern in left ov	aru	for
Polycystic pattern in tejt oc		1
		BANKAI SOOD
	D.N	I.B (RADIODIAGNOSIS)

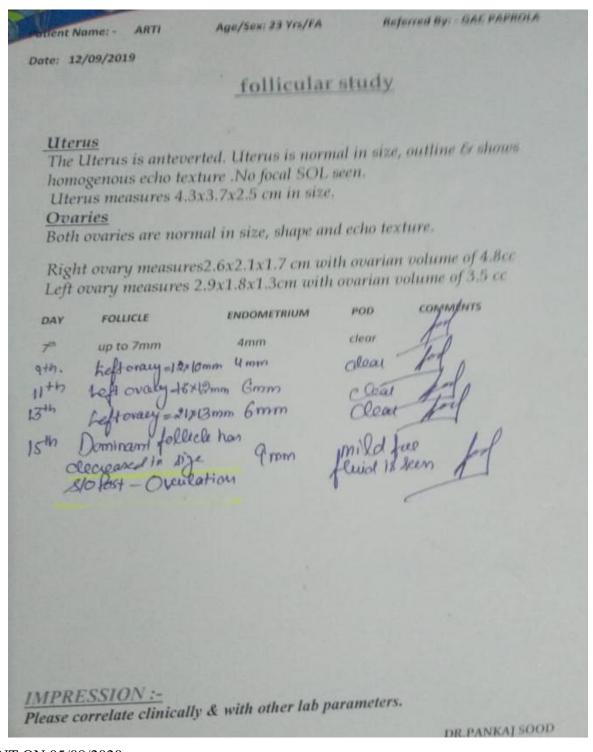
**USG Interpretation** 

Date		Uterus	E.T	Ovaries	Impression
03/06/2019	USG	AV	7mm	Multiple	*calcified
	WHOLE			small	concretion
	ABDOMEN			follicles are	in right
				seen in left	kidney
				ovary	*Right
				showing	ovarian
				predominant	simple cyst
				peripheral	*Polycystic
				pattern of	pattern in
				distribution	left ovary
				Right ovary	
				shows p/o	
				simple cyst	
				measuring	
				3.4x 2.9 cm.	
12/09/2019	Follicular	AV	9mm	Dominant	Ovulatory
(After treatment)	study			follicle seen	cycle

Date		Uterus	E.T	Ovaries	Impression
03/06/2019	USG	AV	7mm	Multiple	*calcified
	WHOLE			small follicles	concretion
	ABDOMEN			are seen in	in right
				left ovary	kidney
				showing	*Right
				predominant	ovarian
				peripheral	simple cyst
				pattern of	*Polycystic
				distribution	pattern in
				Right ovary	left ovary
				shows p/o	
				simple cyst	
				measuring	
				3.4x 2.9 cm.	
12/09/2019	Follicular	AV	9mm	Dominant	Ovulatory
(After treatment)	study			follicle seen	cycle

Graffian follicular study on 12/09/2019

After treatment Graffian follicular study was done it showed ovulatory cycle, simultaneously couple was guided to try for conception.



NT ON 05/08/2020

## **Treatment planned for female**

S. no	Procedure	Medicine drug	Dose	Duration
1	Virechan karma	Trivritaadiyog		
2	Kal Karma basti	Anuvasana Vasti with	100ml	10 days
		ksheerbala tail		
		Niruha Basti with		6 days
		Palaashadi Kwath	600-	
			800ml	
3	Lekhanabasti	Triphalakwath		3days
4	Uttar basti	Phal Kalyan Ghrita	5ml	For 3days on
	(garbhashyagata)			alternate days
				after the
				completion of
				lekhnabasti
5	SthanikSnehan	Balaashwagandha tail		Before
				Procedure
6	SthanikSwedana	Dashmoola Kwath		Before
				Procedure

## Mode of action

Poorvakarma-Local abhyanga with balaashwagandhatail and swedana of dashmoolakwath was given to patient in Kati, udara, janghapradesh. Snehana and swedana causes vishyandana and dravibhuta of doshas due to its sara, sukshma, ushna, tikshna properties.

**Pradhaan karma:** Virechana Karma was done in 3 steps; Deepanapachan of doshas was done for 7 days with *chitrakadivati* (3gm in divided doses for 3 days), *Snehpan* with Cow Ghee for 7 days in increasing dose as per Agni (1st day 30ml, 2nd day 60ml, 3rd day 90ml, 4th day 120 ml, 5<sup>th</sup> day 150ml, 6<sup>th</sup> day 180 ml, 7<sup>th</sup> day 210 ml). After *Snehpana* was completed then 3 days snehana with bala tail and sarvangavaspaswedanakarma was done, next day virechana done with the yog containing Trivrit, aragvadh, sanaya, gulabpushpa, draksha, saindavlavana with triphalakwath. Virechana causes elimination of morbid bio-humors and useful in disorders of pitta associated with vata or kapha. According to Acharya kashyapa "virechanabijambhavatiikarmukatama". Kalbasti was given after 9 days of virechana karma, (A1+N6+A6+A3=16). Anuvasan should be given first day, then 6 niruha and 6 Anuvasana given alternatively and at last 3 anuvasana), Anuvasanabasti with ksheerbala tailand niruha given with palashadikwath. Ksheerbala is madhura rasa, laghu, snigdha, pichchhilaguna, sheetavirya, madhuravipaka, it is prajasthapan, brimhaniya,balya and balances all three doshas, madhur rasa, madhurvipak, sheetavirya help in the shaman of pitta dosha, pitta is mainly responsible for any metabolic and hormonal change in body. It is also used to treat male and female infertility. Niruhabasti is given with palashadikwath,

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palash is antioxidant, plash helps to improve sexual weakness and manage sexual dysfunction, because of its vajikarana (aphrodisiac) nature and Kashaya property. Lekhanabasti with triphalakwath was given to patient for 3 days after the clearance of menses. Lekhana Basti can remove the avaranjanyavata and clean the micro channels of the body. Triphala is Deepan, Pachan, Lekhana, Ruksha, Yonivishodhana, Artavajanan Beejotsarga, Prajasthpana, Vrishya, Garbhasayashothhara, Vajikaran, it reduces body weight by regulating Jatharagni. It helps to normalise the FSH level stimulate growth and development of follicle.

Uttar basti was given after one day of Lekhanabasti, Uttar basti with phalkalyan ghrita was administered through the vaginal tract in uterus of women. It is the basti which is given through Uttara marga (garbhashyagata). Phalkalyan ghrita is helpful in yonivikara, vandhyatava, garbhiniroga, tridoshashamak (Mainly vatahara), balya ,brihiniya ,garbhada, rasayana. The drugs administered through intrauterine route get absorbed in the systemic circulation and give positive feedback on H-P-O Axis, thus promote the growth of follicles and help in ovulation

## Husband's profile

\*Pt was 27 yrs old, shopkeeper by occupation. Patient was already taking medication for oligospermia from some other institution. He visited us for no improvement in semenogramdespite medical management. Patient was advised investigations like complete Semen Analysis, Blood group, FBS, TFT, HIV, VDRL, HbsAg FSH, LH, Serum Prolactin & testosterone. His LH & FSH values were raised along with normal serum testosterone & prolactin, TFTshowed hypothyroidism picture. Semenogram showed oligozoospermia with decreased sperm motility and pus cells, patient was put oneltroxin 12.5mcg for hypothyroidism with doxycycline 100mg 12hourly for 14 days for infection,cap addyzoa 2 bid (purnachandrodyaras, suvarnavang, shuddhashilajit, abharakbhasametc), kapikacchu 1 bid, cap multivitamin 1 od. Panchakarma management protocol was planned to improve resistant semanogramreport.

**Family history:** No relevant history

# • General physical examination

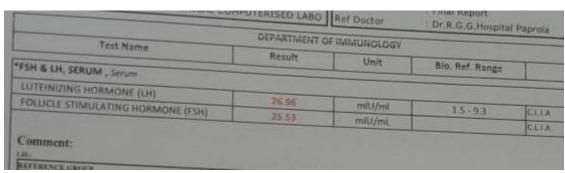
Built	Moderate
Pallor/icterus edema	Not present
/cyanosis /clubbing	
/lymphadenopathy	
B.P	110/74mmof Hg
P.R	84/min
Temerature	97.4F

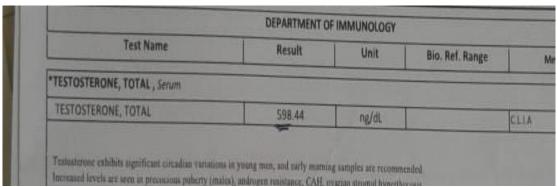
# **Systemic examination**

CVS	S1,S2 Normal
CNS	Conscious, well oriented
RS	B/L air entry adequate

# **Investigations (Before treatment)**

B.G	FBS	HIV	VDRL	HbsAg	Prolactin	FSH	LH	Testosterone	B.G	FBS
0+	76	N.R	NR	N.R	2.5	25.53	26.mIU	598.44		
	mg/dl				ng/ml	mIU/ml	/ml	ng/dlg/dl		





Age/Gender UAID Visit ID Client Name	: 27 Y 0 M 0 D 7M : AANK 0000000550 : AANKS56 : ANKUSH CLINICAL COM	PUTERISED LABO	Received Reported Status Ref Doctor	: 16/Oct/2019 12:55AM : 16/Oct/2019 09:46AM : Final Report : Dr.R.G.G.Hospital Paprola	
		DEPARTMENT	OF IMMUNOLOGY		
	Test Name	Unit	Bio. Ref. Range	Method	
THYROID PROFILE	(TOTAL T3, TOTAL T4, TSH), Se	rum			
TRI-IODOTHYRO	NINE (T3, TOTAL)	1.63	ng/mL	0.60 - 1.81	CLIA
THYROXINE (T4, TOTAL)		6.80	ug/dl	3.2 - 12.6	CLLA
THYROID STIMULATING HORMONE (TSH) 6.77		ulU/mL	0.35 - 5.50	CLIA	
Adv:- Anti Tpo	antibodies, if the patient i	s not on any me	dication.		

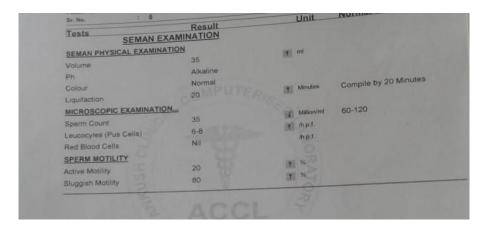
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## • TFT

Before treatment		
Date 14 /10/2019		
T3 -1.63 ng/ml		
T4-6.80 ug /dl		
TSH-6.77u IU/ml		

# • Semen analysis before treatment

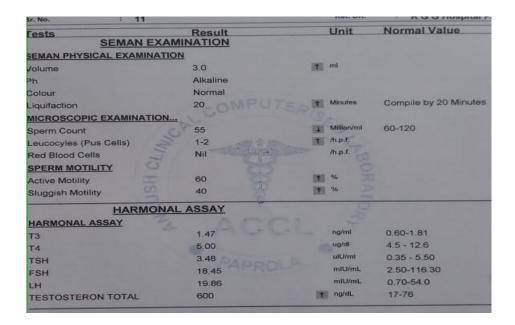
Date	Volume	less than 2.0 ml
10/07/19	Ph	Alkaline
	Sperm count	Less than 35 million /l
	Pus cell	6-8hpf
	Rbc	Nil
	Active motility	More than 20 %
	Sluggish motility	60%



# • Investigation after treatment

FSH	18.45mIU/ ml
LH	19.86mIU/ ml
Testosteron	600ng/dl

T3	1.47ng/dl
T4	5.00ug/dl
TSH	3.48u IU /ml



## Semen analysis after treatment

Date	Volume	More then 2.0
11/02/2020	ph	alkaline
	sperm count	55 million/ml
	pus cell	1-2hpf
	rbc	nil
	active motility	60%
	sluggish motility	40%

## **Treatment planned for male**

S. no	Procedure	Medicine drug	Dose	Duration
1.	ShodhanNasaya	Trikatuchurna		For 3 days
	karma			
2	SnehanNasya	Anu tail		
3.	KalKramaBasti	<i>Auvasanabasti</i> by <i>Bala</i>	100 ml	10 days
		ashwagndadi Tail		
		NiruhBastibyVidariga	600 -	6 days
		ndhadikwath	800ml	
4.	Sthaniksnehana	Balaashwagnadha tail		Before procedure
5.	Sthanikswedana	Dashmoolakwath		Before procedure

## Mode of action

## Nasya karma

Firstlyshodhan Nasya was done for 3 days after Shodhan Nasya, Snehana Nasyawas given for three days with increasing dose from 8 Drops to 32 drops than Snehan Nasya was done in alternative days for four days with constant dose of 32 drops in each nostril. Nasya act on brain (pituitary) because "NASA HI SIRSO DWARAM "Trikatu is 'Katu -Tiktarasa'Usna Madhura and Vata -Kapha Nasaka Srotoshodhan, Vataanuloma, Virya, rasa,

Strotomukhavishodhana. Anutailais Vataghana, Brimhana, Snehna. Nose is the gateway of head. Nasya Karma is the process which eliminates the vitiated doshes of the *Urddhvangya* ensuring the smooth functioning of the brain and ultimately whole body. The drug used for Nasya may be acting through this olfacto-hypothalamo-pituitary pathway and improving the functioning of the endocrine glands and help to regulate the follicular stimulating hormone (FSH), Luteinizing hormone (LH), Thyroid hormones, Testosterone hormone.

## After Nasyakarma next day bastiwas given by kalkrama

#### A- Anuvasana basti

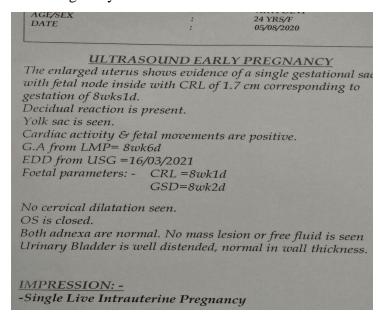
#### N- Niruh basti

17	1	2A	3N	4A	5N	6A	7N	8A
91	1	10A	11N	12A	13N	14A	15A	16A

Anuvasanabasti is given with Balaashwagandadi Taila, Bala (Sidacordifolia) is rasayan, vajikarana, Balya, madhurras, laghu, snigdha, pichchhila in guna, sheet in virya, Ashwagandha is considered as a rejuvenating, rasayan. Hypothalamic –pituitary –gonadal (HPG) axis is known to be involved in stress response and controls spermatogenesis, Ashwagandhaimproves blood circulation throughout the body and enhances sperm quality naturally. Vidarigandhadigana is Vata-Pittanashak, vipaka -madhur, Ras-madhurtikta, Guna-snighdha, virya is sheeta. These drugs are vrishya and shukravridikara.

## **RESULTS**

After the *Sanshodhan karma* the patient conceived, USG findings on 05/08/2020 shows Single Live Intrauterine Pregnancy.



### **DISCUSSION**

Panchakarma hold a unique importance in Ayurvedic treatment. Ayurvedic approach is very beneficial in infertility. Cleansing measures balance the doshas. Virechana karma cleanse all the body tissues and detoxify and purify the body, virechana karma also indicated in the treatment of all yonirogas. It is helpful in beejamkarmuktavam (ovulation). Acharya mentioned Bastitreatment as very useful treatment in Vandhyatava i.e.in infertility. The infertile women having undergone cleansing by sequential use of purifying procedures, should be given bastichikitsa to regulate vatadosha for nourishment and for the formation of sudhabija. Parasympathetic activity is mainly responsible for Apanavayu activity. Basti given through rectum will stimulate this parasympathetic nervine supply, which help in release of ovum from the follicle in ovary. Apanavayu is the type of 'VataDosha', which controls the Shukra Dhatu (semen). Acharya Sushrutaexplained that there was vitiation of Apanavayu and Vyanvayu in the Shukradosha, because site of Shukra is the whole body and Apanavayu is responsible for the proper explusion of shukradhatu. Vitiation of Apanavayu can impair the function of Shukra. It is Vatahara, Balya, Brihniya, Garbhadaand Rasayana.

Nasya: Nasyaaushadhi reaches to brain via nasal route and act on higher centers of brain controlling different neurological, endocrinal and circulating functions and thus showing local as well as systemic effects. It regulates Hypothalmus-pituatary-gonadal (HPG) axis.

### **CONCLUSION**

As per Ayurvedic texts Shodhan should be done before vajikaranchikitsa. It is an effective and safe treatment for infertility. In cases unresponsive to Shamanachikitsa, Sanshodhanchikitsa is a ray of hope, rather it should be done as prima facie to Shaman chikitsa.

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