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Effect of Ayurvedic Preconceptional Care as a Fertility Solution for a Couple Advised for IUI - A Case Report

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ABSTRACT

INTRODUCTION: Infertility synonymous to *vandhyata* can be understood as when the couple fails to conceive even after one year of unprotected intercourse. Infertility affects about 8-10% of the couples in the reproductive age and thus brings up psychological, social and physical suffering. According to *Ayurveda*, *śuddha śukra*, *ārtava* (healthy male and female factors), *garbhāśaya* (uterus), healthy body and mind are needed for a good conception. Hence a holistic approach is needed for the management of infertility.

CASE: This is a case report of a 33 year old female and 35 year old male having no issues since 2 years of unprotected intercourse with a history of abortion at the 5th week. All the relevant investigations were reported normal. They were repeatedly advised for IUI because both were above 30 years of age. Both the partners were given *virechana* (purgation) followed by internal medications to improve the health of the male and female factors and promote conception along with exercises, *sūryanamaskāra*, meditation and *prānāyāma* for three months.

RESULT: The patient conceived during the 3rd month of the treatment.

DISCUSSION: *Ayurveda* has advocated the need of proper preconceptional care to beget a good progeny. *Pumsavana* is explained for *garbha grahana*, *garbha sthāpana* (supporting and maintaining the conception). Considering the case as *garbhasrāvi vandhya* (infertility with a history of abortion), the treatment was given to support the implantation, improve the quality of male and female factors. The treatment protocol was designed to improve the overall health of the patient by considering the somatic, psychological and spiritual realm.

KEYWORDS

Vandhyata, *Garbhasrāvi Vandhya*, *Virechana*, *Garbhadana*, *Preconceptional Care*



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INTRODUCTION

Infertility is defined as the inability of a couple to conceive despite having carefully timed frequent unprotected sexual intercourse for one year. Infertility can be primary when the couple have never conceived and secondary when the couples have already conceived and having difficulty to conceive again. Infertility affects about 8 to 10 percent of the couples in the reproductive age group. Conception is dependent on the fertility of both the partners. For infertility, the male is directly responsible for 30 to 40 percent of the cases while female for 40 to 55 and both in about 10 percentage. In rest of the 10 percentage, unexplained infertility persists, where the couple is pathologically healthy¹.

According to *Ayurveda*, the concept of *vandhya* holds near to infertility. *Hareeta* has described seven types of *vandhya* which may due to *bāla avastha* (immaturity of reproductive organs), *garbhakośa bhanga* (uterine abnormalities), *dhātu kshaya* (poor nutritional status), *garbhasrāvi* (unsuccessful pregnancy with abortion history), *kākavandhya* (inability to conceive after one child), *anapatya* (primary sterility), *mritāvastha* (repeated fetal loss)². By analysing the above types, it can be concluded that *vandhya* in *Ayurveda* is not limited to absence of conception but

also the failure of successful continuation of pregnancy leading to the birth of a live child. According to Ayurvedic classics, along with healthy sperm and ovum, healthy reproductive organs, good physical, nutritional and mental status, timely intercourse, normalcy of *vāta* are also needed for a good conception³. Acharyas have also added the treatment principles which are to be adopted in cases when the infertility is due to the pathology in the above factors. A couple devoid of pathology also is advised to follow certain regimen similar to the preconceptional care to attain *deha āśaya mano śuddhi* (healthy body, reproductive organs and mind) to beget a healthy progeny⁴.

CASE REPORT

This is a case report of a 33 year old married, non-smoking, non-alcoholic female with secondary infertility since 2 years of unprotected sexual intercourse.

CASE HISTORY

The patient attained menarche at the age of 14 and had regular cycles i.e., 28-30 day interval with 4-5 days moderate bleeding, used 2-3 pads per day. She used to have tolerable pain 6 to 8 hours before the onset of menstruation and used to continue for 5 to 6 hours thereafter. At the age of 30 years,



in February 2014, she got married to a 33 year old man. It was a non-consanguineous marriage. Since then they were living together. For the initial one year, they used barrier contraception to postpone the pregnancy. In May 2015, after 3 months of discontinuing the barrier contraception, she conceived, but after the 5th week per vaginal bleeding occurred and it got aborted. After that she never conceived. She consulted an allopathic doctor in January 2016 and did USG (TVS), hormonal assays and tube test and results were normal.

Appendices

A.1: USG report of the patient confirming conception

FOR MEDICAL REPORTING PURPOSE ONLY

Name: [Redacted]	Age/Sex: 33Y/F
Bill No: [Redacted]	ID: [Redacted]
Ref: [Redacted]	[Redacted]

OBSTETRIC SCAN REPORT (TVS)

LMP: 07.10.2017
GA by LMP: 6 weeks 2 days
EDD by LMP: 14.07.2018

GA by U/S: 5 weeks 6 days
EDD by US: 17.07.2018

OBSERVATION

Gravid uterus shows a well-defined intrauterine gestational sac with good decidual reaction

Fetal pole visualized

Yolk sac visualized

There is no sub chorionic haematoma

Internal os closed. Cervix measure 2.5cm.

No adnexal masses.

Corpus luteum cyst seen in right ovary

IMPRESSION:

➤ Single intra uterine gestation corresponding to 5 weeks 6 days.

Dr. JOSE KURUVILA MBBS DMR
CONSULTANT RADIO

Thanks for the referral, kindly lets know the follow up.

(note: please note that this report is only a professional opinion based on the image findings and not a diagnosis by it document is not for legal purpose)

A.2- USG report on completion of the 24th week of gestation.

Name: [Redacted] hhy

Bill No: [Redacted]

Ref: [Redacted]

Age/Sex: 34Y/F

ID: 2971

Date: 30.03.2018

OBSTETRIC GROWTH SONOGRAM REPORT (TVS)

LMP: 07.10.2017
GA by LMP: 24 weeks 6 days
EDD by LMP: 14.07.2018

GA by USG: 25 weeks 0 day
EDD by USG: 13.07.2018

Fetal Biometry (All measurements are in cm)

BPD: 6.6 cms corresponding to 25 wks 1 days

HC: 23 cms corresponding to 26 wks 5 days

AC: 20.9 cms corresponding to 25 wks 3 days

FL: 4.5 cms corresponding to 24 wks 5 days

Approximate fetal weight at present: 783 +/- 56 gms

Presentation: Transverse lie, head at right lower quadrant.

Placenta: Anterior, lower margin 6 cm above the internal os.

Liquor: Adequate

Cardiac activity: 142 beats/min.

Cervical length: 4.3 cm

Foetal movement: Present

Internal os is closed

IMPRESSION:

Single viable Intra uterine foetus with an average gestational age of 25 wks 0 day at the time of scan.

Semenogram of the male partner also reported to be normal. The doctor gave her folic acid and told to wait for six months. In 2016 July, again she went to the same doctor and follicular study was done and found normal ovulation. Then the doctor advised for a laparoscopy and also IUI. But the patient was not ready to do it. In 2016 December, she had complaints of per vaginal itching with white discharge and consulted the same gynaecologist and took some anti-fungal medicines and the symptoms reduced. Again the doctor advised to go for IUI as she was 33 years old. But she wanted to conceive naturally. In August 2017, she came to our OPD. There was no significant history of any other chronic illness, no history of any kind



of allergy or addiction for both the partners. Personal history revealed regular bowel habits and sound sleep. Both the partners prefer sweet, spicy and fried food and preferred meat daily. No similar complaints were found among their siblings.

On general examination, they were conscious and well oriented. Blood pressure was 110/70 mm Hg, Pulse rate 70 bpm, and Height 165 cm, Weight 60 kg for the female and for the male Blood Pressure was 120/80 mm Hg, Pulse 74 bpm, Height 178 cm and Weight 80kg. Both were of *vāta pitta prakriti* (body constitution) with *madhyama satva* (mental status). Systemic examination was done and found to be normal. Abdominal examination revealed no tenderness or masses. All the relevant investigations were found normal for both the partners. For the female partner, per

speculum and per vaginal examinations were done and found to be normal.

Based on the history and assessing the present condition, the case can be diagnosed as *garbhasrāvi vandhya* (infertility with history of abortion). Since no identifiable pathology was found, it can be included under unexplained infertility. Acharyas have advised to follow certain procedures and diet and regimen for both the partners prior to conception⁴. The concept of *pumsavana* is also explained for *garbha grahana*, *garbha sthāpana* (supporting the implantation and maintaining the pregnancy⁵. Considering these principles, a specific treatment protocol was adopted for both the partners. The treatment protocol adopted for the female is tabulated in Table No: 1 and that of the male is detailed in Table No: 2

Table 1 Treatment protocol- female

Treatment	Medicine	Days	Dose
<i>Dīpana-Pāchana</i>	<i>Hinguvachādi Chūrnam</i> ¹¹	Day 1- Day 3	3gm bd
<i>Snehapāna</i>	<i>Phala Sarpi</i> ¹²	Day 4- Day 8	25ml,50ml,100ml,200ml, 250ml
<i>Sarvānga Abhyangam</i> <i>Bāshpa Swedam</i>	<i>Dhānwantaram Tailam</i> ¹⁶	Day 9- Day11	
<i>Virechanam</i>	<i>Gandharvahasthādi Érandam</i> ¹⁷	Day 11	30 ml (<i>vegas</i> 10)
<i>Samsarjana Karma (special diet based on the purification)</i>		Day 11-Day 13	
<i>Śamana</i>	(1) <i>Phala Sarpi</i> ¹²		2tsp bd
	(2) <i>Śatāvri (5gm),</i> <i>Yashtimadhu (5gm)</i> <i>Ksheerapākam</i>		100ml
	(3) <i>Vatānguram (2 nos.),</i> <i>Māsha (5 gm), Sugarcandy in</i> <i>Milk In empty stomach</i>	3 months	
Advice- brisk walking for 20 min daily, <i>sūryanamaskāra</i> 12 rounds in the morning, meditation and <i>prānāyāma</i> for 30 minutes daily			



Table 2 Treatment protocol – male

Treatment	Medicine	Days	Dose
<i>Dīpana – Pāchana</i>	<i>Hinguvachādi Chūrnam</i>	Day 1- Day3	3 gm bd
<i>Snehapāna</i>	<i>Sukumāra Ghritam</i> ¹⁴	Day 4- Day6	25ml bd
<i>Sarvānga Abhyanga</i> <i>Bāshpa Swedam</i>	<i>Dhanwantaram Tailam</i>	Day 7-Day 9	
<i>Virechana</i>	<i>Gandharvahasthādi</i> <i>Érandam</i>	Day 9	30ml (vegas - 8)
<i>Samsarjana karma</i> (special diet based on the purification)		Day 10- Day 12	
<i>Śamana</i>	<i>Māsha aswagandhādi</i> <i>Chūrnam</i> ²⁰	3 months	1tsp bd with milk

OUTCOME

The patient conceived during the third month of treatment. (Her LMP was 7/10/2017)

She successfully delivered a female baby (FTND, baby weight 2.9 kg) at her 34 years of age on 9/7/2018.

DISCUSSION

The clinical symptoms and history of the present case report resemble to *garbhasrāvi vandhya*. *Charaka* mentions that, *garbha* (fetus) is formed by the union of *śuddha śukra* and *ārtava* in *apradushta garbhāśaya* (healthy uterus) during *ritu kala* (fertile period)⁶. It grows owing to the nourishment from the *āhara rasa* (essence of food) of the mother⁷. *Saumanasya* (psychological well-being)⁸ and normalcy of *vāta* (a body humor)³ are also essential for conception and maintenance of pregnancy. Hence Ayurvedic management of infertility follows a holistic approach considering the individual as a whole and considers both the body and psyche.

The female in this present case is of 33 years old and many studies prove that women suffer from reduction in fecundity as the age advances. At any age over 30 years, women who have not attained their first pregnancy have a lower chance of achieving pregnancy⁹. The decrease in fecundity is mainly due to the decline in the quality of the oocyte released along with that of the endometrium. This is also accompanied by an increased risk of abortions. Taking this into consideration, *śodhana* in the form of *virechana* was given to promote *deha* and *āsaya śuddhi* for both the partners. It is indicated in the pathologies affecting the male and female reproductive factors and also in the context of *garbhādhāna*⁴ which may be understood as the present day preconceptional care. Preconceptional care is a broad concept that promotes social, behavioural, environmental, biomedical health to a couple indenting for conception through counselling, education and necessary medical interventions. Similarly in our



samhitas, Acharyas have mentioned diets and regimen to be followed during menstruation, during ovulation, suitable age for marriage and conception, how to time the sexual act to beget the progeny in the Ayurvedic classics.

In both the partners, *dīpana pāchana*¹⁰ was given initially for three days with *Hinguvachādi Chūrnam*¹¹ to improve the *agni*. It was followed by *snehapāna* (intake of ghee). For the female partner, intake of ghee in increasing dose with *phalasarpi*¹² as indicated in preconceptional care¹³ was given whereas the male was given *sukumāra ghrita*¹⁴ in a dose of 25 ml for three days in rice gruel with a pinch of rock salt adopting the *sadyo snehana* concept¹⁵. It was followed by *Sarvānga Abhyanga Bāshpa Sweda* (full body massage with medicated oil – *Dhānwantaram Tailam*¹⁶ and sudation therapy) and then *virechana* with *gandharvahāsthadi erandam*¹⁷. *Virechana* helps to attain *śroto viśuddhi* (purify the channels), normalises *agni* and supports *vatānulomana* (normal movement of *vāta*)¹⁸. In the context of preconceptional care, acharyas have advised the male to take *ksheera* processed with *madhura* drugs as it increases the quantity and quality of *śukra*.¹⁹ Based on that understanding, *māshāswagandhādi chūrna*²⁰ was selected. It contains *māsha* (*Vigna mungo*), *aswagandha* (*Withania somnifera*),

swadamshtra (*Tribulus terrestris*), *mudgabeeja* (*Vigna radiata*), *yashti madhu* (*Glycyrrhiza glabra*) and *pakwa rambha phala* (ripe fruit of *Musa paradisiaca*) which are cooked in milk, dried and powdered and given with milk as *anupāna* (adjuvant). This combination is predominantly *madhura rasa* (sweet taste), *snigdha* (unctuous), *śukrala* (supports male factor), *balya* (promotes energy), *rasāyana* (rejuvenate), *vrishya* (aphrodisiac) and promotes *dhātu pushti*.

In the female, the *śamana chikitsa* was given with the drugs improving the *agni*, supporting the implantation, proper functioning of *ārtava* and *dhātus* and improving the quality of the ovum. *Phalasarpi* is a medicated ghee which is *dhātu vardhaka* (promotes body tissues), *garbhadam* (promotes conception), *ayushyam* (supports health), *pushti medha vardhaka* (improves the body tissues and memory) and is indicated in *yōni roga* (female reproductive disorders)¹². Study reports the in vivo effect of *phalasarpi* in animal model female albino rat significantly increased the serum estradiol level and body weight which shows its probable role of action over the hypothalamo pituitary ovarian axis²¹. The drugs in this yoga contain phytoestrogens and acts as a uterine tonic. It also supports



the proliferation of the endometrium along with supporting the folliculogenesis.

The burden of infertility creates psychological stress which leads to generation of reactive oxygen species and thereby oxidative stress which may have a negative impact over the oocyte and endometrium. *Śatāvāri*, *yashti madhu ksheerapākam* (decoction with milk adding *Asparagus racemosus* and *Glycyrrhiza glabra*) is rich in phyto estrogens and anti-oxidants which reduces the stress mediated reproductive problems there by supporting ovulation and implantation^{22, 23}.

Vatānguram (young shoots of *Ficus benghalensis*), *Māsha* (*Vigna mungo*) in the form of bolus added with Sugar Candy in Milk was given rooting in the principles of *pumsavana* which is *garbha grahanaya*, *garbha sthāpanārtham*. Chemical constituents in the combination like sterols, flavanoides, tannins, saponins support the aromatisation of testosterone to estrogen which is having a positive effect on ovulation and in increasing the endometrial thickness²⁴. Food and other regimens to be followed for both the partners were also given due importance. They were advised to avoid meat and resort to healthy diet consisting of rice, milk, pulses, fruits, vegetables and small fishes which are rich in omega-3 fatty acid in order to get adequate nutrition. Also advised to time the

intercourse according the fertile window. The mental status of the couple during conception plays a very important role. Hence exercises, *sūryanamaskāra*, meditation and *prānāyāma* were advised giving due consideration to the health of the psyche and body. These could surely remove the mental stress and had a positive effect over the hypothalamo pituitary ovarian axis to support the treatment.

CONCLUSION

The treatment protocol was designed based on the concept of *garbhādhāna pūrva karma* which may be similar to the present day concept of preconceptional care. Thus the holistic approach considering the individual as a whole, helped the couple to conceive naturally.



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