

## AYURVEDA APPROACH TO RECURRENT PREGNANCY LOSS – A CASE REPORT

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### ABSTRACT

Recurrent miscarriage is a distressing problem worldwide affecting approximately 1% of all women trying to conceive. The risk increases with each successive abortion traumatizing the couple emotionally. We are reporting a 23 year old female who presented with early pregnancy failure twice before. This devastating condition can be correlated with *Garbha Sravi Vandhyatva* in Ayurveda. Her hematological and ultrasound showed normal report whereas husband's testosterone assay and semen analysis reported to be abnormal. So, the male partner was diagnosed of *ksheena shukra dosha* and consequently causing recurrent pregnancy loss named as *shukra doshajanya garbhasravi vandhyatva*.

Ayurveda therapeutic plan with *shamana chikitsa* was prescribed to the couple which resulted in the conception after 2 months and also uneventful childbirth.

**KEYWORDS:** Recurrent pregnancy loss, *Garbhasravi vandhyatva*, *Ksheena shukra*, *Ayurveda*.

### INTRODUCTION

For a successful motherhood, uneventful continuation of pregnancy is as necessary as achieving conception. However, abnormal conceptions because of the pathologies in genetic, endocrine etc. factors may land up in pregnancy loss which is one of the most frequent pregnancy complications. Recurrent abortion is defined as the sequence of two or more spontaneous abortions as documented by either sonography or on histopathology, before 20 weeks.<sup>[1]</sup> It is frustrating for the couple as well as for the clinicians to bear the loss of pregnancy. This distressing issue affects around 1% of couples trying for conception. In view of Ayurveda, failure to achieve a live birth has also been included under *vandhyatva* known as a "*Garbhasravi Vandhyatva*" by Acharya Harita. Hence, the female case was diagnosed

with “*Garbhasravi Vandhyatva.*”

Ayurveda, the scientific traditional health system has illustrated a sound knowledge regarding conception and infertility. Ayurveda emphasizes on *shukra* including it under four essential factors for conception. Acharya Sushruta further explained 8 kinds of *shukra dushti* which results in inability to procreate. Out of all the kinds, *ksheena shukra dosha* can be correlated with reduced Sr. testosterone level and abnormalities in semen parameter in male partner in this case.

Considering the involvement of *Ksheena Shukra Dosha* (reduced testosterone level along with abnormal semen parameters) in *Garbhasravi Vandhyatva* (recurrent pregnancy loss), management was planned based on treatment regimen elaborated by Acharya Sushruta<sup>[2]</sup> for *ksheena shukra* under the umbrella of *Vajikarana anga* as well as on a monthly regimen prescribed in order to prevent *garbhasrava*.<sup>[3]</sup>

The role of an Ayurveda approach in *shukra doshajanya garbhasravi vandhyatva* not only to achieve conception but to have a healthy progeny is to be validated for further utilization and wellbeing of couples. The present case report is the attempt on the same.

## A CASE REPORT

### Presenting concerns

The case of this report is a 23 year old female married with 28 year old male belonging to middle class society visited STREEROGA OPD, NIA JAIPUR complaining of early pregnancy failure twice before. Previous evaluations of female include hematological investigations (including TORCH) and UGS uterus adnexa along with husband's hormonal assay. Investigations into female revealed to be normal whereas her Husband's serum testosterone report on 29/07/2020 showed reduced level up to 7.75 nm/dl. The patient was advised to perform husband's semen analysis post 3 days of abstinence from coitus which revealed a total count of 15 million/ml with volume – 1.5ml /ejaculate, motility active 45%, dead 40%, sluggish 15%, morphology – 50%, abnormal forms > 40%, pus cells 3-5/hpf and pH- 7.0.

### Patient Information

Her menstrual history revealed that she had her last menses on 22/08/2020 with a cycle of 4-5 days duration, interval of 25-28 days and regular normal flow with mild pain. Her active

marriage life was 2 years, coital frequency 4-5 times/week with no current use of contraception. Her obstetric history was G2P0A2L0 with 2 spontaneous abortions, A1 of one and half month gestation 2 years back, not followed by D& E. A2 was spontaneous abortion of 2 months GA, followed by D&E, a year back. Patient had no significant medical and surgical history.

### Physical Examination

On examination, Couple's general condition was apparently fair with normal Blood pressure and Pulse Rate. Husband's BMI was 26 whereas that of wife was 22. Per Vaginal findings of female showed Uterus in AVAF position, cervical motion tenderness showing no tenderness with absent visible pathology.

### Diagnostic Focus

In the view of abnormal semen parameter and reduced testosterone level of male partner along with all the normal investigations of female partner, couple was diagnosed with *ksheena shukra dosha janya garbhasravi vandhyatava*.

### Interventions

The management plan was to initiate with psychological assurance followed by *deepana pachana* (enhancement of digestive fire) for 7 days and then *shamana chikitsa* (Oral administration) for both the partners. *Deepana – pachana* (Enhancing digestive fire) was done using *ajamodadi churna* available in NIA Dispensary. Couple attained *Nirama laskhana* (Aama digestion) within 7 days at next OPD visit. Afterwards, *Shamana chikitsa* was administered for 3 months with combination of *Ashwagandha*, *shatavari*, *yashtimadhu* and *gokshura* along with *phala ghrita* to male and a combination of *Yashtimadhu*, *shaka beeja*, and *bala beeja churna* along with *phalaghrita* to female.

### TIMELINE

Days	Date	Complaints	Investigations	Treatment Prescribed
Day0	27/08/2020	1. Recurrent Pregnancy Loss for two times 2. Desirous to conceive 3. Loss of appetite	<b>Male Partner :</b> <b>29/07/2020</b> 1. <b>Sr. Testosterone</b> – 7.75 nmol/L 2. <b>CBC</b> – WNL <b>Female Partner:</b> 1. USG Whole abdomen (10/07/2020) Normal Study 2. CBC- WNL	<b>Male</b> 1. <i>Ajamodadi Churna</i> 3 gm twice a day Before Meal  <b>Female</b> 1. <i>Ajamodadi Churna</i> 3 gm twice a day Before Meal  <b>Both</b>

			3. RBS- WNL 4. Sr.TSH- WNL <b>Advise:</b> 1.Husband's semenAnalysis following 3 days of abstinence	1. Psychological assurance 2. <i>Nidana Parivarjana and PrakritiVighata</i>
Day7	3/09/2020	Improvedappetite	<b>31/08/2020</b>  <b>Semen Analysis</b>  Volume – 1.5 mlpH – 7.0 Total Count – 15 million /ml Active Motility – 45% Dead – 40% Normal Forms – 50% Abnormal Form - >40% Pus Cells --3-4/hpf	<b>MALE:</b> 1. <i>Phalaghrita</i> 10 ml twice a daywith milk 2. <i>AshwagandhaShatavari Yashtimadhu Gokshura</i> each 2 gm in <i>churna</i> form- <i>Ksheerapaka</i> twice a day in the morning and evening  <b>Female:</b> 1. <i>Phalaghrita</i> 10 ml twice a daywith milk 2. <i>YashtimadhuShaka Beeja Bala beeja</i> 2 gm <i>churna</i> each – <i>Ksheerapaka</i> Twice a day in the morning andevening.
Day16	12-09-2020	Same as above	-----	Same treatment continued
Day30	26-09-2020	Same as above	-----	Same treatment continued
Day 63	29-10-2020	Same as above	-----	Same treatment continued
Day91	26-11-2020	1. Delayed Periods since 7 days  2. Nausea 3. Loss ofappetite	<b>1.Urine Pregnancy Test:</b> done at NIA OPD on <b>26/11/2020</b> <b>Result – Positive</b>  <b>ADV</b> <b>1. Sr. Testosterone Level</b>	<b>Female</b> 1. <i>Phalaghrita</i> 10 ml twice a daywith milk 2. <i>Yashti Shaka BeejaBala beeja</i> 2 gm <i>churna</i> each <i>Ksheerapaka</i> Twice a day in the morning and evening
Day105	10/12/2020	1.Delayed Periods since 1 and half months of appetite	<b>ADV. 1.USG FWB</b>	Same Treatment continued as mentioned above
Day107	12/12/2020	1.Delayed Periods since	<b>USG FWB on 12/12/2020</b> <b>Impression :</b> Single Intrauterine Pregnancy of 8 wks 4 days +_ 4 days, CRL 19.9 mm EDD- 20/07/2021 Cardiac activity – present FHR – 168 bpm	Same Treatment continued as mentioned above

*Ksheerapaka* was prepared as per standard procedure mentioned in Yadavaji Trikamji Acharya.<sup>[4]</sup>

## FOLLOW-UP

After two months of therapy, couple visited NIA OPD on 26/11/2020 complaining of missed periods. UPT done at NIA OPD reported positive. She was asked to have follow-up in NIA OPD for complete Antenatal checkup and management in order to prevent pregnancy loss. Male partner was asked to repeat his Sr. Testosterone level following three months of therapy but he denied it as the partner was already pregnant. During follow-up just a female partner was given medication viz. *Phalasarpi* and *Yashtimadhu*, *Shaka beeja churna* along with *Bala beeja churna*.

## OUTCOME

USG done 2 months following last menses revealed SLF of 8 weeks 4 days gestation age with cardiac activity present. Patient was followed up for treatment throughout her pregnancy. On 16/07/2021 at 5.32 pm, she delivered a live Male Child of weight 3.1 kg full term Caesarean Delivery because of Cord around fetal neck.

## USG FINDING AFTER THE TREATMENT

**Date:** 12/12/2020

**Uterus:** Gravid and shows intrauterine embryo within a rounded gestation sac with CRL measuring about **19.9 mm** corresponding to 8 weeks 4 days.

**EDD:** 20/07/2021

**Cardiac activity** is present and regular FHR- 168 BPM

**IMPRESSION:** Single intrauterine pregnancy of 08 weeks +/- 4 days.

## DISCUSSION

Recurrent abortion is the term used when the fetus is expelled out of womb before period of viability. The danger increases with the progressive abortion reaching up to the 30% after three successive miscarriages.<sup>[5]</sup> Historically, recurrent miscarriage has been attributed to either genetic, metabolic, structural, infective, endocrine, immune, or unexplained causes.<sup>[6,7]</sup> The management of recurrent miscarriage is based on psychological assurance, identifying the underlying cause and treating the same. In spite of advances in clinical research, recurrent pregnancy loss lasts as a challenge to the clinicians.

Ayurveda defines *vandhya* as inability to have a live child rather than conception. This is why Acharya Harita has included *Garbhasravi* and *mritavatsa vandhya* under the classification of *vandhya*.<sup>[8]</sup> Out of these two, *Garbhasravi vandhya* relates the features of recurrent abortion. Hence, this devastating condition is correlated with *Garbhasravi vandhya* in the present case.

“Testosterone deficiency” is the condition where there is reduced testosterone level and one or more of the symptoms out of abnormal semen parameters, decreased libido, decreased muscle mass and loss of energy, etc. The standard management for this condition is testosterone therapy which is associated with various adverse effects.<sup>[9]</sup> Based on the function of Testosterone in men as a stimulator of production and ejaculation of semen, it is correlated with *shukra dhatu* in Ayurveda. Thereby the reduced testosterone level associated with abnormal semen parameters has been considered as *ksheena shukra dosha*.

In Ayurveda, emphasis is given on the necessity of healthy *garbhasambhava samagri* (factors necessary for conception) for a healthy conception. Acharya Sushruta has enlisted four factors viz. *Ritu* (Ovulatory Period), *Kshetra* (Reproductive Tract), *Ambu* (Nutrition) and *Beeja* (Sperm and Ovum) essential for conception, among which *Shuddha Beeja* holds the prime importance.<sup>[10]</sup> In support of this, Acharya Charaka has also accentuated on *shukra* as one of the fundamental factor for full development of fetus.<sup>[11,12]</sup> These all emerges out the importance of *Shuddha Shukra* for a healthy progeny which otherwise may lead to abortion or Intrauterine fetal death. Acharya Sushruta has further stated 8 kinds of *shukradosha* viz. *vata*, *pitta*, *kapha*, *kunapa*, *granthi*, *puti*, *puya*, *ksheena* which causes the male unable to reproduce.<sup>[13]</sup> Therefore, reduced Sr. testosterone level associated with abnormal semen parameters- *Ksheena shukra dosha* is thought to be the cause for recurrent pregnancy failure as other causes were excluded. To correct this, Acharya Sushruta suggests the use of *swayonivardhana dravya* (Having similarity in *dravya*, *guna* or *mahabhoota*) as mentioned in *ksheenabaliya vajikarana adhyaya*.<sup>[14]</sup> Based on the various formulations mentioned by Acharya Sushruta in “*ksheena baliya vajikarana chikitsa adhyaya*”, a combination of *Ashwagandha*, *Shatavari*, *Yashtimadhu* and *Gokshura* was prescribed as a *shamana chikitsa* for *ksheena shukra dosha*.

Being a case of recurrent pregnancy loss, rather than conception uneventful continuation of pregnancy till the delivery of a healthy progeny was a real challenge in this case. In order to prevent pregnancy loss, Acharya Sushruta has referenced a month wise treatment regime under “*Garbhini vyakarana Sharira Adhyaya*”. Its first month regime comprises of drugs viz.

*Yashtimadhu*, *Shakabeeja*, *Payasya* (*Vidari*) and *Suradaru*. Since *Garbhanishkramana* is function of *vata*, *vitiated vata* may be associated with premature expulsion of *garbha*. *Bala* being the supreme drug in *vata shamana* (Pacify *vata*) and *balya karma* was selected for



intervention.<sup>[15]</sup> Hence, the female partner was prescribed some of the drugs from *garbhasravahara* first month regimen viz. *Yashtimadhu*, *Shakabeeja*, along with *Balabeeja* and *phala sarpi* since the period before conception till the completion of pregnancy.

*Phala Sarpi* is a polyherbal formulation comprising of around 18 herbs indicated by Vagabhata, Sharangadhara, Bhavaprakasha and Yogaratnakar in the management of *Vandhyatva*.<sup>[16]</sup> Also, being a proven formulation for this indication as well as for recurrent pregnancy loss.<sup>[17]</sup>, it was administered in both the partners along with above mentioned formulation of *vajikarana* drugs in male. *Phala sarpi* is the choice of drug even in case of recurrent pregnancy loss.

### PROBABLE MODE OF ACTION OF DRUGS

Drug Name	Indication	<i>Doshagnata/Karma</i>	Pharmacological Action
<b>1. Ajamodadi Churna</b> <sup>xviii</sup>	<i>Kapha vatavikara</i> <i>Aama vata</i>	By virtue of its <i>katu rasa</i> and <i>ushna virya</i> <i>Kapha vatashamaka</i> <i>Agni-Deepana</i> <i>Aama- Pachana</i> <sup>[19]</sup> , Improves <i>rasa dhatu</i> formation by firstly acting on <i>jatharagni</i>	Restoration of <i>Agni</i> and further correction of <i>dhatu nirmana kriya</i>
<b>2. Ashwagandha Shatavari Yashtimadhu Gokshura</b>	<i>Shukrakshaya</i>	By virtue of its <i>madhura rasa</i> and <i>Sheeta veerya</i> <i>Vata-pittashamaka</i> , <i>Kaphabardhaka</i> <i>Rasayana</i> , <i>Balya Shukrala</i> ,	Improvement in Sr. Testosterone level resulting in enhanced spermatogenesis and thereby resulting in conception
<b>3. Phalasarpi</b> <sup>[20]</sup>	<i>Yonidosha</i> , <i>Shukradosha</i> , <i>Apraja</i> , (Infertility) <i>Mriyamana</i> <i>Praja</i> (Still Birth) <i>Garbhini</i> (Pregnancy)	<i>Punsavanam Param</i> (Supreme in fertility improving ) <i>Ayushya</i> (Enhances Life) <i>Dehavardhanam</i> (Optimizes growth of babies )	Correction of <i>ksheena shukra dosha</i> and <i>yoni roga</i> Helps in endometrial development for implantation Enhancement of life of fetus in utero
<b>4. Yashtimadhu Shakabeeja</b>	<i>Garbhasravahara</i> <i>Prathama masayoga</i>	<i>Garbha Apyayana</i> (Nutrition to fetus) <i>Tivra ruk shaman</i> (Corrects severe pain)	Helps in fetal nutrition and thereby growth of fetus Corrects fetal factors responsible for abortion
<b>5. Balabeeja</b> <sup>[21]</sup>	<i>Shashtha masa garbhasrava</i> <sup>[22]</sup> Serious <i>Vatavikara</i>	<i>Balya</i> , <i>Vatahara</i> , <i>Rasayana</i> , <i>Grahi Prajasthapana</i> , <i>Ojovardhaka</i>	Rejuvenates entire reproductive tract. Strengthens Uterus. Proliferates Endometrium for implantation

## CONCLUSION

- Testosterone deficiency is be associated with abnormal semen parameters which can attribute recurrent pregnancy loss.
- Recurrent Pregnancy loss can be successfully managed with Ayurveda treatment approach commencing prior to conception and continuing throughout pregnancy.
- Studies in the same context should be pursued further to generate stronger evidences and for better motherhood.

## PATIENT PERSPECTIVE

The patient was satisfied with the treatment as the pregnancy was successfully continued till term and she uneventfully delivered a live Male child.

## DECLARATION OF PATIENT CONSENT

Patient gave consent for publication of article.

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