Case Study

AYURVEDIC MANAGEMENT OF SECONDARY INFERTILITY DUE TO POLYCYSTIC OVARIAN SYNDROME AND TUBAL BLOCK: A CASE STUDY

Rineesha K.P1*, Asha. S.T2

1PG Scholar, Dept. of Prasutitantra and Streeroga, Govt. Ayurveda College, Thiruvananthapuram, Kerala, India.  
2Professor & HOD Dept. of Prasutitantra and Streeroga, Govt. Ayurveda College, Kannur, Kerala, India.

ABSTRACT
Secondary infertility is defined as the inability of a couple to conceive who had at least one prior conception. Ovarian factor and tubal factor are the most frequent causes of secondary infertility in women. Polycystic Ovarian Syndrome is a common endocrinological disorder and it is characterized by menstrual irregularities and anovulation. It can be correlated with Nashtartava in Ayurveda. Tubal factor infertility occurs when an obstruction in fallopian tube and it can be correlated with Sanga srotodushti of Artavavaha srotas or Beejavaha srotas. A 36 year old female presented with a complaint of secondary infertility a diagnosed case of Polycystic Ovarian Syndrome and tubal block with a history of neonatal death due to preterm delivery at 24 week gestation and husband aged 38 year with normal semen analysis. The present case was treated on Ayurvedic management protocol including Shodhana, Samana therapies and Uttaravasti. Treatment was started with Deepana - Pachana medicines. Then Udwarthanam, Virechanam, Mathra vasti and Uttaravasti were done which removes the Srotorodha and helps in proper formation of each Dhatu. Uttaravasti is the most effective local treatment in gynaecological disorders. Uttaravasti with hot potency medicine is very effective in treating tubal blockage. The outcome of the treatment resulted in twin pregnancy and delivered two female babies. So the present case signifies the fruitful outcome of Ayurvedic treatment in the field of infertility.

KEYWORDS: Secondary infertility, Polycystic Ovarian Syndrome, Tubal block, Nashtartava, Artavavaha srotas, Uttaravasti.

INTRODUCTION
Infertility is a worldwide health problem affecting approximately 10-15% in a couple of reproductive age group. Getting healthy progeny stood on par with human happiness. Ayurveda provides a holistic approach to improve the fertility.

Infertility is defined as the failure of a couple to conceive after one year of regular unprotected coitus. Secondary infertility means the inability to conceive in a couple who had at least one prior conception. 30-40% of women with infertility are due to ovulatory factor and tubal factor[1]. Age above 35 years is also an important factor which reduces the probability of a woman to conceive healthy baby.

Polycystic Ovarian Syndrome (PCOS) is a common endocrinopathy in a woman of reproductive age group. The prevalence of PCOS is 6-10% globally and accounts 50% of oligo – ovulation and infrequent menses. It reduces the fertility due to oligo - ovulation, or anovulation, menstrual irregularities and hyper androgenism[2]. Tubal damage is mainly due to pelvic infection and adhesion which result in tubal blockage and affects the normal ciliary action of the inner lining of the tubes and tubal motility.

Ayurveda classics mentioned that Yoni dosha (Disease of female genital tract), Mansika dosha (Mental stress), Sukra-asrik dosha (abnormalities of gametes) Akalayoga (advanced age, coitus in improper time) Ahara dosha (unhealthy food habits), Vihara dosha (abnormalities of mode of life) are the factors which delay conception[3]. For proper fertilization, implantation and development of healthy progeny the four factors, Rtu (fertile period), Kshetra (female reproductive tract), Ambu (nutritional factors) and Beeja (Sperm and ovum) are essential[4]. Any defect in these four factors lead to Vandhyatwa (Infertility).

In Ayurveda the condition Polycystic Ovarian Syndrome can be correlated with Nashtartava. Due to indulge in faulty food habits and regimens result in vitiation of Vata & Kapha dosha which obstruct the Artavavaha srotas (channels carrying menstrual blood) leading to non-expulsion of menstrual
blood[5]. Ayurveda classics not mentioned correct correlation for Tubal blockage, So Sanga Srotodushti (Obstruction in minute channels) in Artavavaha or Beejavahasrotas (Minute channels carrying menstrual blood or gametes) can consider as tubal blockage. Any injury to this Srotas leads to infertility, amenorrhea and dyspareunia[6]. Considering the Srotorodha, Shodhana (purification therapy) and Uttaravasti using the drugs having Sookshma (subtle) and Tikshna (sharp) properties can be used. Uttaravasti is an important Sthanika chikitsa (Local therapy) in menstrual irregularities, infertility and diseases of female genital tract.

Case Report

A 36 year old lady with a complaint of inability to conceive a second child attended the OPD of Govt. Ayurveda College W & C Hospital Poojapura, Thiruvananthapuram on January 2019. Detailed history showed that she had her menarche at the age of 13th year and had a regular cycle till 20 year of age. Since then she had complaints of irregular bleeding pattern of 15-20 days duration with 2 months - 6 months interval. On investigation she was diagnosed with bilateral PCOS. She took allopathic medicines for 6 years and cycles become normal only on medication. In 2006 she underwent Laparoscopic ovarian drilling for PCOS.

At the age of 34 she got married to a non-consanguineous man of 36 years. She conceived naturally within two months but it was Preterm delivery in December 2017 due to Preterm premature rupture of membrane at 24 week of gestation. The baby was shifted NICU and died after 6 days. After 6 months she was treated with 3 cycles of ovulation induction with clomiphene citrate 50 mg from day 2 to day 5 of her menstrual cycle but was unsuccessful. They next proceed to having ovulation induction along with intrauterine insemination for one cycle but it was unsuccessful again. On HSG done on December 2018 she was diagnosed with left tubal block.

Patient had a history of recurrent urinary tract infection. On physical examination her BMI was found to be 27.2. Pelvic examination was carried out, on inspection normal findings of external genitalia were found. On per speculum examination mild vaginitis was present, healthy cervix and cervix in mid position. On per vaginal examination cervical motion tenderness was present, fornices are free and uterus is antverted.

Personal History

| Diet            | Mixed |
|-----------------|-------|
| Appetite        | Good  |
| Taste preferred | Sweet, Sour |
| Bowel           | Normal |
| Micturition     | Normal |
| Sleep           | Sound  |
| Allergy         | Nil    |
| Addiction       | Nil    |

Male Factor

Male partner aged 38 years and did not have any relevant medical or surgical history. Baseline investigation showed husband has normal semen analysis.

Ayurvedic Management

Internal medicines

1. Saptasara kashaya - 90ml -0- 90ml one hour before food
2. Ashta choornam - 5g - 0 - 5g with hot water

| Date       | Procedure                                      | Dose     | Duration |
|------------|------------------------------------------------|----------|----------|
| 28.01.2019 | Udwarthanam Kolakulathadi Choornam             |          | 7 days   |
| 04.01.2019 | Virechanam -Gandharvahastadi eranda taila     | 20ml     | 1 day    |
| 07.02.2019 | Mathra vasti - Sahacharadi taila Mezhukupakam  | 60ml     | 3 days   |
| 10.02.2019 | Yoni pooranam- Triphala Kashaya               |          | 2 days   |
| 12.02.2019 | Uttaravasti – Panchamla taila                  |          | 3 days   |

Medicines at the Time of Discharge

1. Saptasara kashaya - 90ml- 0 - 90ml before food
2. Lasuna ksheera - 1 glass evening
3. Virechanam with Hingutriguna taila – 20ml once a week.

Patient had her cycles for 2 months with duration of 4 – 5 days of moderate bleeding. She had her LMP on 18.04.2019 and scan done on 16.08.2019 revealed that twin pregnancy of 10 week 0 days with
scan EDC 16/03/2020. GDM develops at 12 week of gestation and was on insulin injection. On 6.02.2020 she delivered two female babies through LSCS at 34 week of gestation due to oligohydramnios with a weight 2kg & 1.7kg. Now the babies are healthy with normal developmental milestone and having adequate weight.

**DISCUSSION**

Secondary infertility indicates failure to become pregnant subsequently and mainly due to ovarian dysfunction and tubal factor. Polycystic Ovarian Syndrome is a lifestyle disorder and is characterized by menstrual irregularities and anovulation and it can be correlated with *Nashtartava* (Absence of menstruation). Sedentary lifestyle and unhealthy food habits are the main reasons for PCOS. Tubal blockage or obstruction to *Artavavaha srotas* results improper union of male and female gametes leads to infertility. In both conditions there is obstruction in *Artavavaha srotas* due to *Kapha dosha* which hamper the normal function of *Vata dosha*. So the treatment protocol mainly aims to remove the *Srotorodha* (obstruction in channels) in *Artavavaha srotas* maintain the normal function of *Doshas*.

According to Ayurveda *Shodhana Chikitsa* (purification procedure) remove the toxic elements developed in body system and improve the health by maintaining the equilibrium of *Tridosha* and proper nourishment of *Uttarottara dhatu* (succeeding tissues). It also corrects any derangement in hormonal system. *Uttaravasti* helps in expelling vitiated *Dosha* from female reproductive tract and highly beneficial in nourishing uterus.

The treatment was started as *Deepana-Pachana* (carminative-digestive) with *Saptasara kashaya* and *Ashta choornam*. *Saptasara kashaya* mainly act on *Koshtangas* (abdominal and pelvic organs). It is *Vata-kapha samana* (pacify *Vata-kapha* humor) and *Deepana* (carminative). It is indicated in *Agnimandya* (Indigestion), *Yoni roga* (Diseases of Female reproductive system)[7]. *Ashta Choornam* is mainly indicated to improve the digestive power. It helps in proper nourishment of *Dhatu* (tissue) by normalizing body metabolism.

External procedure was started with *Udwarthanam* (upward massage with powder) and the drug selected for this was *Kolakulathadi choornam* due to its *Ruksha guna* (dry in nature) and *Ushna virya* (hot potency). It is *Kapha - Vata samana* (Pacify *Kapha & Vata* humor) and has *Srotoshodhana* (clearance of minute channels) property. It is indicated in *Sthoulya* (obesity). *Udwarthanam* with this medicine decreases the excess fat in the body and reduces the peripheral conversion of androgen to estrone in PCOS.

After *Udwarthanam*, *Virechanam* (purgation) with *Gandhavahastadi eranda taila* was given. Purgation purifies the body and is the best *Shodhana* (purification therapy) in menstrual disorder. *Gandharvahastadi eranda taila* is *Vata-kapha samana* (pacify *Vata-kapha* humor) in nature and is best drug for *Apana vata anulomana* (forcing the downward movement of *Apana vata*). It is *Vrshya* (aphrodisiac) in nature. Due to its *Sookshma* (Subtle) property it enters into minute channels and clears the obstruction.

After purgation *Mathra Vasti* (enema with oil) was done with *Sahacharadi taila mezhukupakami*[8]. *Vasti* is mainly indicated in vitiated *Vata dosha*. *Sahacharadi taila* is *Vata kapha samana* (Pacify *Vata-kapha* humor), *Srotoshodhana* (clears the passage) and also help in reducing inflammation.

*Yoni pooranam* (retained douche) with *Triphala kashaya* was done to cure mild vaginitis. *Triphala kashaya* has anti-inflammatory action. Then intrauterine *Uttaravasti* with *Panchamta taila* was done. *Panchamta taila* has *Sookshma* (subtle) and *Tikshna* (sharp) properties. It act on tubal blockage by its hot potency and removes the obstruction[9].

Discharge medicines contain *Saptasara kashaya*, *Lasuna ksheera* and *Virechanam* with *Hingutriguna taila*. *Lasuna* is indicated in *Artava Dushti* (menstrual irregularities) and its *Ksheera* preparation cures vitiated *Vata dosha*. *Hingutriguna Taila* has hot potency and an effective medicine for *Kapha avarana vata roga* (disease due to *Vata* is enveloped by *Kapha* humor)[10].

**CONCLUSION**

*Vandhyatwa* is now become a major cause for emotional stress and negative impact on the relationship among couples. PCOS and tubal blockage are the main two causes for inability to conceive a baby who had one prior conception and it affects 10%-15% of couple. *Nashtartava* and obstruction in *Artavavaha srotas* are the main reasons for *Vandhyatwam*. *Shodhana* therapy and *Uttaravasti* removes the obstruction in *Artavavaha srotas* and *Samana* treatment maintains the equilibrium of *Tridosha* and proper nourishment of *Sapta dhatu*. The holistic approach of Ayurvedic treatments helped to get healthy babies.

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Rineesha K.P, Asha. S.T. Ayurvedic Management of Secondary Infertility Due to Polycystic Ovarian Syndrome and Tubal Block

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*Address for correspondence
Dr. Rineesha K.P
PG Scholar,
Dept. of Prasutitantra & Stree Roga,
Govt. Ayurveda College,
Thiruvananthapuram, Kerala, India.
Email: drkprineesha@gmail.com

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