AYURVEDIC APPROACH IN MANAGEMENT OF INFERTILITY DUE TO ANOVULATORY FACTOR: A CASE REPORT

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ABSTRACT
Childbirth should be an event of joy and satisfaction in the life of a woman. Millions of people of reproductive age are affected by infertility worldwide and have an impact on their families and communities. Ayurveda defines the term Vandhyatva as a condition involving the inability to give childbirth which is described as infertility in modern texts. Infertility not only affected the health of women but is also considered a social stigma. Beeja Dushti is an important factor responsible for infertility which may be considered an ovulatory defect. The failure to ovulate contribute 40 % cases of female infertility. Conventional treatment of anovulatory infertility is ovulation induction and IVF with major complications. Thus, it is a need in today’s scenario to find out a solution for an anovulatory factor which is with minimal side effects and is easy to approach. In Ayurveda, acharyas mentions few principles regarding causative factors and etiopathogenesis and management of Vandhyatva. but they have not mentioned the treatment according to the separate factor involved. This case report presented a successfully treating cases of infertility with an anovulatory cycle by using Jala Basti and alternate hot and cold fomentation along with Shaman Chiktsa.

KEYWORDS: Vandhyatva, Beeja Dushti, jala Basti, anovulatory cycle.
INTRODUCTION

The major elements involved in a healthy progeny according to Ayurveda is Ritu, Kshetra, Ambu and Beeja\cite{1} and any abnormality of these factors can lead to infertility. In ayurvedic Vandhyatva considered due to Vata Dosha\cite{2,3} and Rasdhatu Pradoshaja Vikara\cite{4} in the classic text, it is considered as Yonivyaapad\cite{5}, a consequence of abnormality of bija\cite{6} (Pradushta Garbhasaya Bija Bhaga of shonita).

Infertility is a commonly increasing problem that any gynecologists have to face. It disturbs the social and family life of a woman and affects her mental and physical health. A woman of reproductive age who has not conceived after one year of unprotected vaginal sexual intercourse is defined as infertility.\cite{7} ovulation disorder along with H-P-O axis disturbance and disturbed menstrual cycle is a common cause of infertility. In Ayurved Proper functioning of four factors viz. Rutu, Kshetra, Ambu and Beeja is the prime requisites for Garbha (conception).\cite{8} Acharya Dalhana in his tika explained Beeja as Artava & Shukra. The word Artava refers to ovum, menstrual blood and ovarian hormones in samhitas.\cite{9}

In the process of ovulation, Tridosha has an important role. Here Vata plays role in proliferation and division of cells (granulosa and theca cells), rupture of the follicle, etc.\cite{10} Pitta is responsible for the function of Paka Karma and we can correlate it with conversion power(like conversion of androgens to estrogen in Graffian follicle) and maturity of follicle\cite{11} and Kapha binds all the cells together and gives nutrition for growth and development of the cells. Rutu kala is the appropriate period for Beejotsarga\cite{12} and it is the period of Kapha predominance.\cite{13}

In the text, there are various scattered references available of anovulation as Beejopaghata, Pushpopaghata and Pushpaghani.\cite{14}

In Vandhya yoni, the Artava is destroyed and here, we can interpret Artava as Ovum and consider Vandhyatva due to the anovulatory menstrual cycle.\cite{15}

In Artavanasha, taking Artava can as Antahpushpa both Vata and Kapha when aggravated, obstruct the path, thus Artava is either undeveloped or development becomes arrested causing Anovulation.\cite{16}

Among the three Doshas, Vata plays a major role in the Vandhyatava. Thus, anovulatory defect is vata prominent tridoshaja vyadhi.\cite{17,18}
DESCRIPTION OF PATIENT
A 32 years old woman reported the Prasutitantra and Streeroga outpatient department (OPD) with the complaint of being unable to conceive in the last two years. On further inquiry, she said that she was married since 10 years and she had a child of 9 years and also had a history of spontaneous abortion 2 year back. After that, she was unable to conceive after 2 years of unprotected intercourse. On further inquiry, she gave a history of the normal menstrual cycle with a duration of 4 to 5 days and intervals of 30 to 32 days. In past, Her Ultrasonography suggested a normal uterus and ovaries with follicular study suggestive of the anovulatory cycle. She took treatment for the same for last two years. During her first visit to PTSR OPD, she was advised routine test which was in the normal range and USG for follicular study which is suggestive of anovulation. She had no previous surgical illness. On general examination, and gynecological examination no abnormality was detected. She has been motivated for Ayurvedic Chikitsa and Jala Basti and hot and cold fomentation was planned to achieve ovulation. After 3 cycles of Basti and fomentation, Shaman chiktsa was prescribed and ultimately the conception was achieved.

PAST MENSTRUAL HISTORY
L.M.P-17 JULY2021
- Age of Menarche – 13 years
- Duration – 2- 3 days
- Interval – 45 - 60 days
- Amount – moderate to heavy
- Associated symptoms – pain, smell and clots during menstrual period not present

CONTRACEPTIVE HISTORY
Nil.

OBSTERIC HISTORY
Primigravida.

FAMILY HISTORY
No family history of DM, HTN, TB and thyroid dysfunction.

PAST MEDICAL HISTORY
No history of GDM, HTN, TB and thyroid dysfunction.
No history of exposure to radiation, any toxin or chemical agent.

EXAMINATION OF PATIENT

General and physical examination of patient was done. Her weight is 59 kg and height are 160 cm. Her vitals are in normal range. Hematological investigation was normal and serology for viral markesrs are also normal as show in table 1.

<table>
<thead>
<tr>
<th>Investigation</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT</td>
<td>1min45sec</td>
</tr>
<tr>
<td>CT</td>
<td>6min00sec</td>
</tr>
<tr>
<td>T₃</td>
<td>1.01pg/ml</td>
</tr>
<tr>
<td>T₄</td>
<td>8.90 ng/dl</td>
</tr>
<tr>
<td>TSH</td>
<td>1.55 uIU/mL</td>
</tr>
<tr>
<td>Blood group</td>
<td>A positive</td>
</tr>
<tr>
<td>Hb</td>
<td>12.8 g/dl</td>
</tr>
<tr>
<td>RBS</td>
<td>94mg/dl</td>
</tr>
<tr>
<td>ESR</td>
<td>19 mm fall after 1hr</td>
</tr>
<tr>
<td>TSB</td>
<td>0.5mg/dl</td>
</tr>
<tr>
<td>DSB</td>
<td>0.2mg/dl</td>
</tr>
<tr>
<td>SGOT</td>
<td>20IU/L</td>
</tr>
<tr>
<td>SGPT</td>
<td>22IU/L</td>
</tr>
<tr>
<td>B. Urea</td>
<td>23 mg/dl</td>
</tr>
<tr>
<td>S. Creatinine</td>
<td>0.7mg/dl</td>
</tr>
<tr>
<td>S. Uric acid</td>
<td>3.3mg/dl</td>
</tr>
<tr>
<td>HIV</td>
<td>NR</td>
</tr>
<tr>
<td>VDRL</td>
<td>NR</td>
</tr>
<tr>
<td>HbSAg</td>
<td>NR</td>
</tr>
</tbody>
</table>

TREATMENT

Treatment plan

Samsodhana
1. **Vamana** - with Madhuyashti Kwatha and Madanphala Churana
2. **Virechana** - with Haritaki Churana and Tri[phala Kwatha
3. **Pathya sevana**

Shamana

<table>
<thead>
<tr>
<th>Content</th>
<th>Dose</th>
<th>Mode of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tab Beejpushti Rasa</strong></td>
<td>IBD</td>
<td>Oral</td>
</tr>
<tr>
<td><em>Kapikacchu (Seed Extract)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cap Shatavri</strong></td>
<td>1 BD</td>
<td>Oral</td>
</tr>
<tr>
<td><em>Methika (Fenugreek Extract)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chikitsa</td>
<td>Drug</td>
<td>Dose</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Basti</td>
<td>Jala</td>
<td>60 ml</td>
</tr>
<tr>
<td>Swedana</td>
<td>Alternative with hot and cold</td>
<td>-</td>
</tr>
</tbody>
</table>

**Basti**

**Poorava karma** - Light diet

**Pradhana karma**

- Lie down on table in left lateral position with flexed right leg at the knee and stretched left leg
- 60 ml syringe with rubber catheter was used
- After lubrication, the tip of rubber catheter inserted in anal orifice slowly
- The syringe was held slightly above the anal orifice and administration of balyam taila was done slowly
- Patient was advised to lie in table with hand legs freely spread for ½ hr

**Paschat karma**

Pathya - Apathya: There is no specific demand of diet and behaviour during use of Matrabasti. But according to Acharya Vagbhatta, it is to be restricted for the Day sleep (Divaswapa) after administration of Matrabasti.\[104\]

Pratyagama Kala:\[105\] The Pratyagama Kala of Anuvasana Bati is 3 Yama i.e. 9 hours and there is no harm if Matrabasati is retained in the body.

**RESULT**

Patient was followed up after every 7 days and *Anuvasan Basti* was given on every follow up and also yoni pichhu was given and advised for every night. On 3rd follow up pelvic assessment was done which is s/o adequate pelvis and preparatory phase. After 3rd follow up in next 3 days patient reported to OPD with the complaint of abdominal pain since 3 hrs. On examination it was found that there is onset of labor pains. Per vaginal examination shows that cervical dilation is 3.5 – 4.0 cm and effacement is 50- 60 % with head station is -2 and intact membranes. It is s/o of patient is in active labor as shown in table. There is good progress of labor without the sign of fetal distress as shown in partograph in fig 2. She delivered a male child with normal apgar score and baby weight 3.2 kg. There is no any other complication in postnatal period.
Table 1: Bhrimana Chikitsa Protocol.

<table>
<thead>
<tr>
<th>Yoga</th>
<th>Content</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhatu Pushti churna</td>
<td>Ashwgandha, Shatavri, Gokhru, Beejband, Kaunch Beej, Safed and Kali Musli, Sonth, Vidarikand, Nishoth</td>
<td>3gm BD</td>
</tr>
<tr>
<td>Tab Turmix</td>
<td>Curcuma longa (300 mg) + Piper Nigrum (5 mg)</td>
<td>1 BD</td>
</tr>
<tr>
<td>Ashokaarisht</td>
<td>Asoka, Jaggery, Dhataki, Musta, Shunti, Ajaji, Daruharidra, Triphala, Amrasthi, Jeeraka, Vasa, Chandana</td>
<td>40 ml with equal amount of water</td>
</tr>
</tbody>
</table>

Table 2: Timeline on Routine Chekup.

<table>
<thead>
<tr>
<th>Time</th>
<th>Menstrual symptom (Cycle interval)</th>
<th>Weight (kg)</th>
<th>BMI (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At time of reporting of patient (April 2021)</td>
<td>45 to 60 days</td>
<td>39kg</td>
<td>15.2</td>
</tr>
<tr>
<td>After 3 months (rounds) of bhrimana treatment (June 2021)</td>
<td>30 to 35 days</td>
<td>44 kg</td>
<td>17.2</td>
</tr>
<tr>
<td>After next 2 months of nasya treatment (August 2021)</td>
<td>28 to 30 days</td>
<td>45 kg</td>
<td>17.6</td>
</tr>
<tr>
<td>After next 1 months of cycle</td>
<td>Patient got conceived</td>
<td>46 kg</td>
<td>18</td>
</tr>
</tbody>
</table>
Figure 1: Usg Nasya Treatment (June 2021).

Figure 1: Usg After Treatment (Sep 2021).
DISCUSSION

Here in this case patient was advised for Anuvasana Basti and yoni pichu for normal spontaneous vaginal delivery. After 3rd round of anuvasna basti, she came to us with onset of labor pains and delivered a male child with normal apgar score without any complication in natal and postnatal period. According to above discussion we see that there are so many problems which are faced by a lady during normal as well as abnormal delivery thus, by administrated anuvasana vasti and pichu in 9th month of pregnancy, we can reduce chances of abnormal delivery and post-partum complications. In Classical, Anuvasana Basti and Pichu administration during Pregnancy was indicated in 8th month of pregnancy (susrut sarirsthan chapter no.10), in 9th month (charak sarirsthan chapter no.8). Administration Criteria for Using Anuvasanabasti and Pichu mentioned in text is from the first day of 9th month. Basti is considered as the paramoushadhi of vata and indicated where vayu plays a pathological role. But here in case of garbhini, basti is indicated to prevent vitiation of vayu.
Anuvasana basti mainly contains saneh dravya. Aacharya charak explained mode of action of basti and said that basti by reaching up to umbilical region (transverse colon), sacroiliac region (rectum), flanks and hypochondriac region (ascending and descending colon) and churning up of feecal and morbid matter present there in and at the same time by spreading its unctuous effect in the whole body, draws out the feecal and morbid matter with ease. (charak siddhi).

Further explained that while lying in the pakvasya (colon) due to its veerya it draws the morbid matter lodged in the entire body from foot to the head, just as the sun situated in the sky sucks up to moisture from the earth (chark) also Acharya Sushruta has also explained that well prepared Vasti dravya when given properly, the Veerya of the Vasti Dravya (active principle) acts upon minute channels of Pakwasaya and spreads throughout the body. He described that the Vasti nourishes the body as the roots are nourished by the irrigation of water. Vasti acts locally in the Pakwasya, which is the chief seat of the Vayu (Apana) and helps in Shodhan, Shaman and Anulomana of the vitiated Vata. This also corrects the natural pace and direction of the Apana Vayu.

Acharya charka has mentioned, during the period of pregnancy, vayu is most likely to be in vitiated state. Anuvasan basti contains saneh i.e. oil and it counteract the Rukshta by Singdhta, laghuta by guruta, sheetata by ushanata. Besides these basti of taila also do Manaprasada, veerya, Bala, Varna and agnipushti. It is free from risks and also cures all diseases as well as regulates normal functions. Caraka states that, Anuvasana Vasti when given nourishes all the cannels after reaching the Nabhi (main seat of Sira and Dhamni). Pharmacological action and therapeutic effects of vasti, as follows:

A. Action of Vasti, due to its unique procedure (Procedural effect)
B. Action of Vasti due to drug used n process (Drug effect)
C. Action of vasti by srotsudhi and sodhana of body (Sodhana effect)
D. Action of vasti by regulating the enteric nervous system or GUT BRAIN AXIS (Regulating effect on gut brain) (Sastry, M.K. and Singh, R.H. (1993) postulated four dimensional views for)

Picchu is also one type of Snehana therapy. It is made with cotton swab and used for snehana karma after soaking in the taila. When it is placed in yoni called yoni picchu. It causes snehana, vishyandana, mardavvata and kledana as per the definition of snehana. Yoni picchu also causes stabilization of muscle of yoni which increase muscle strength. Yoni picchu also
makes muscles soft and smooth so they stretch very well, by lubrication prevents unnecessary friction and also destroys pathological bacteria of vaginal canal.

In classic text acahrays mention Anuvasan Basti With Amadhur Ausadha Siddha Dravya in pregnancy. (charak sharir 8) Here we used balayam taia which contains dravya mention in Madhur skandhas in charak Samhita.

It is often the effect of all ingredients of balyam taila in formula rather than the action of individual drugs. The ingrediants are mostly have Madhura rasa, guru and sinagdha guna, some have sheeta and some have ushana veerya, almost Madhura in vipaka. Mostly ingredients have properties like vatashamaka, balya, brimhaneeeya, vedanasthapaka, rasyan and snehana.

CONCLUSION

- So in this present era, when everything is going to be super specialized, it is very necessary to target a particular etiopathology and thus provide remedy for the particular factor.

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29. Dhanvantri Nighantu editor Diwedi BK CHAUKHMBKA KRISHANDAS ACEDEMY 2008 In GUDUCHYADI VERGA PAGE NO 25.


35. (Dhanvantri Nighantu editor Dwivedi BK CHAUKHMBKA KRISHANDAS ACEDEMY 2008 In Shatapushpadi Varga PAGE NO 78-79.

37. The Olfactory Nerves are Connected with The Higher Centers of Brain I.E. Limbic System, Consisting Mainly of Amygdaloidal Complex, Hypothalamus, Anterior Thalamic Nuclei Parts of Basal Ganglia.
