AN AYURVEDIC MANAGEMENT OF VANDHYATVA W.S.R. TO AN OVULATORY FACTOR

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ABSTRACT

Infertility is a common global problem and it is seen that one third of the infertile population seeking advice from the infertility clinics show an ovulation. About 40% of women suffering from infertility due to ovulatory dysfunction can be considered under BeejaDushti (most essential factor is Beeja, amongst four factor described by Acharya Sushruta). For the present study, total 24 patients having symptoms of an ovulatory factor were selected and among them ovulation study had been done for 2 consecutive cycles. Patients were randomly divided into two groups, Group A (N=13) treated with ShamimAshavatthaGhrita intrauterine Uttarakasti along with ShamimAshavatthaGhrita orally and in Group B (N=11) treated with Go-Ghrita intrauterine Uttarakasti and orally same as in Group A. In group A 16.67% patients got conceived and 41.67% patients had ovulated. The result is statistically highly significant of group A while in group B 12.50% patients were conceived and 37.50% patients had ovulated.

Keywords: Anovulation, Infertility, ShamimAshvatthaGhrita, Vandhayatva.

INTRODUCTION

Fertility is the capacity of a couple to reproduce or the state of being fertile. As successful pregnancy is a multi-step chain of events, even if one of the events or conditions is not met or not met in right amount of time pregnancy may not happen or reach to birth. Infertility by itself does not threaten physical health but has a strong impact on the psychological and social well-being of the couples. Infertility can result in severe emotional stress. Couples often describe the “hope and despair” cycle, as they hope each month that they will finally
conceive and then despair when once again it does not happen. All these four factors Rutu, Kshetra, Ambu and Beeja are prime requisites for the Garbha according to Acharya Sushruta. Among them Beeja is the core part of the female reproductive process and in its absence Garbha cannot form inspite of all the other factors. Here the Beeja is taken as Antahpushpa i.e. ovum. So an ovulation can be included under Beeja Dushti.

According to FIGO manual ovarian factor contributes 15-25% in causes of the female infertility. So, it is the second common cause of infertility. Ovulatory cause is an important subset in infertility among women, accounting about 40% of cases. An ovulatory or inability to produce to fertile ovum is an important cause among the women for infertility. In such patients ovulation induction is a rescuer.

Over last decades, fertility therapy has expanded more than any other field of medicine. Hormonal therapy, in-vitro Fertilization (IVF), Embryo Transfer (ET), Gamete Intra-fallopian Transfer (GIFT) etc. so many therapies are developed, but they have unsatisfactory results, enormous expenses and lots of side effects like ovarian hyper stimulation, frequent abortion, multiple gestations and major long term possibility of ovarian cancer. So, there is a ray of hope for giving her a ‘NEVER-ENDING JOY’ of motherhood through the Ayurvedic treatment.

Even in the Ovulatory phase, the rupture of follicle is the phenomenon by the karma of Vata – VayuVibhajate. Pitta is involved by its conversion power, for example conversion of Androgens to Estrogen in Graffian follicle. Pitta Dosha also helps in maturity of follicle by its function of Paka Karma. Kapha stands as a building and nutritive factor. It binds all the cells together and gives Nutrition for growth and development of the cells. In modern science there is a good treatment for infertility due to an ovulation, but in later stage its side effects give worry. For ovulation induction, hormonal based medicine is the drug of choice which is doing well in many women but still it cause lot of side effects like ovarian hyper stimulation, menstrual irregularity etc.

The ancient system of Ayurvedic medicine advocated variety of natural medication, which may provide good results on this factor without any harmful effect.

Here, present study is based on the reference available in Atharvaveda where, it said that Shamim Ashvattha acts as PumsavanamKru tam and it should be used in female. So to evaluate the effect of drug on An ovulation, this study was selected.

AIMS AND OBJECTIVES

- To evaluate and compare the efficacy of ShamimAshvatthaGhrita and Go - Ghrita on ovarian function.

MATERIALS & METHODS

Selection of Patients
The patients were selected from O.P.D. of Streeroga & PrasootiTantra Department,
I.P.G.T. & R.A., Jamnagar and were randomly divided in two groups under the criteria of the selection of the patients.

**Inclusion criteria**
- Patients having complaint of failure to conceive (due to an ovulatory factor) after 1 year of regular unprotected coitus. For this, ovulation study had been done for 2 consecutive cycles.
- Primary and Secondary both type of infertile patients had been selected randomly.

**Exclusion criteria**
- Disorders of Reproductive tract like T.B, Carcinoma and Congenital deformities of reproductive tract were excluded.
- Patients suffering from the known chronic illness, Cardiac diseases and Thyroid disorders, etc. were excluded.

**Selection of drug**
The drug selected in the present study is based on the classical reference from the Atharvaveda. Shamim Ashvattha Ghrita is mainly referred for the Pumsavanam Krutam. Ashvattha leaves were collected in auspicious Nakshatra (PushyaNakshtra) and drug Shamim Ashvattha Ghrita was prepared by using Ashvattha leaves Kwatha and Kalka based on Go-Ghrita through the method of Sneha kalpana of SharangdharaSamhita.

**Investigation**
- Routine: Hematological Examination: - Hb%, TC, DC, ESR, PCV.
- Urine: - (1) Routine (2) Microscopic

**Criteria for diagnosis:**
- Trans Vaginal Sonography (B.T. & A.T.) for the Ovulation Study
  - B.T. - 2months
  - A.T. - 1month
The Trans Vaginal Sonography (TVS) is basic and primary investigation for this study. It was done from day 9th of menstrual cycle up to at least 22nd day of cycle to diagnose an ovulation. In all the patients, TVS was carried out for consecutive 2 cycles to get perfect diagnosis. To evaluate male factor, Semen analysis was carried out of male partner as per WHO criteria.

<table>
<thead>
<tr>
<th>Table 1: Grouping and Posology</th>
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</thead>
<tbody>
<tr>
<td><strong>Group A</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>ShamimAshvatthaGhrita</td>
</tr>
<tr>
<td>ShamimAshvatthaGhrita</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Group B</strong></th>
<th><strong>Go- Ghrita</strong></th>
<th><strong>Dose</strong></th>
<th><strong>Route</strong></th>
<th><strong>Anupana</strong></th>
<th><strong>Duration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>10 gms before meal in morning</td>
<td>Oral</td>
<td>Godugdha</td>
<td>2 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go- Ghrita</td>
<td>5 cc</td>
<td>IUUB</td>
<td>-</td>
<td>3 days in a month for 2 cycles</td>
<td></td>
</tr>
</tbody>
</table>

**Follow up study**
Follow up study was conducted for one cycle after completion of the treatment.

**Criteria for assessment**

The result was assessed on the basis of follicular study (ovulation study).
Scoring Pattern of Follicle

0 = No dominant follicle
1 = follicle size up to 10 mm
2 = follicle size ranging from 11-15 mm
3 = follicle size ranging from 16-20 mm
4 = follicle size ranging from 21-30 mm
5 = Rupture of follicle

(For this scoring method, serial TVS were carried out to diagnose an ovulation for consecutive 2 cycles.)

To assess the overall effects of therapies, a special scoring method was adopted as follows.

**Overall effect of treatment**
The overall effect was graded into 4 types.
(i) Conceived (ii) Complete remission (iii) Improved (iv) Unchanged

<table>
<thead>
<tr>
<th>(i) Conceived</th>
<th>The patient’s was conceived after the treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ii) Complete remission</td>
<td>Ovulation occurred</td>
</tr>
<tr>
<td>(iii) Improved</td>
<td>Ovulation not occurred but only improvement in the size of follicles i.e. 12-19 mm.</td>
</tr>
<tr>
<td>(iv) Unchanged</td>
<td>No change in the growth of the follicle</td>
</tr>
</tbody>
</table>

**Table 2: Effect of therapy**

**OBSERVATION**
Total 24 patients registered in the present study, out of which 20 completed the treatment and 04 dropped out. In group-A 12 and group-B 11 patients completed the treatment and Group A 1 and Group B 3 patients drop out. In this study 87.50% patients had primary infertility & 12.50% patients had secondary infertility. 50% belonged to age group of 26-30 years; 45.83% patients had 6-10 years chronicity and 83.33% had taken Hormonal treatment for infertility.
54.17% of the patients found with BMI 25-29 which is overweight.
Maximum number of patients i.e. 83.33% were having Regular menstrual history 75% Patients were having Moderate quantity of menses.83.33% Patients had Painless menses. 41.67% Patients were having Duration of menstrual period of 4-6 days. 41.67% were having Interval of menstrual period of 25-28 days. Chinta was present in all i.e.91.67% of the patients while Bhaya in 58.33% and Krodha were observed in 20.83% of the patients, while Dainya and Shoka were observed in 45.83% of the patients respectively. It shows that stress was present, which is one of the causes of an ovulation. In the present study, total 54.17% of male partner were detected with abnormal semen report, which affects the overall effect of the therapy.
In group A, before treatment No dominant size of follicle was found in 5 patients (41.67%). Other 25% of patients were having follicular size 11-15 mm and 16-20 mm respectively. In group B, before treatment No dominant size of follicle was found in only 1 patient (12.50%). 37.50% of the patients were having follicular size up to 10 mm and 16-20 mm in 25%. 
Results

Table 3: Effect of therapy on follicular size

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean X (AT-BT)</th>
<th>S.D.</th>
<th>S.E.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B.T.</td>
<td>A.T.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>12</td>
<td>1.58</td>
<td>3.50</td>
<td>1.92</td>
<td>54.76</td>
<td>1.56</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>2</td>
<td>3.75</td>
<td>1.75</td>
<td>46.67</td>
<td>2.76</td>
</tr>
</tbody>
</table>

In Group A the initial mean score of follicular size was 1.58 which was 3.50 after the treatment. This improvement was statistically highly significant (P<0.001). In Group B the improvement was statistically insignificant (P>0.1).

Table 4: Total effect of therapy on ovulation

<table>
<thead>
<tr>
<th>Position of follicle</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>%</td>
</tr>
<tr>
<td>Ruptured</td>
<td>07</td>
<td>58.33</td>
</tr>
<tr>
<td>Unruptured</td>
<td>05</td>
<td>41.67</td>
</tr>
</tbody>
</table>

In group-A, 07 patients (58.33%) had shown rupture of follicle i.e. ovulation occurred while 05 patients (41.67%) had unruptured follicle after treatment. While in group- B, 04 patients (50%) had ovulated and 04 (50%) patients had not ovulated after treatment.

Table 5: Overall effect of ShamimAshvatthaGhrita and Go- Ghrita

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>%</td>
</tr>
<tr>
<td>Conceived</td>
<td>02</td>
<td>16.67</td>
</tr>
<tr>
<td>Complete remission</td>
<td>05</td>
<td>41.67</td>
</tr>
<tr>
<td>Improved</td>
<td>02</td>
<td>16.67</td>
</tr>
<tr>
<td>Unchanged</td>
<td>03</td>
<td>8.33</td>
</tr>
</tbody>
</table>

In group A 16.67 patients were conceived. Complete remission i.e. (Ovulation) was found in 14.67 % of patients. While 16.67% of patients were reported with improvement and 8.33% of patients had no change with treatment. In group B 12.5% of patients conceived. Complete remission i.e. (Ovulation) was found in 37.50% of the patients. No one patient was reported with improvement and 50.00% of patients had no any response to the treatment.

DISCUSSION

Motherhood completes the female’s life and infertility hinders her pathway of it. Incidence of infertility due to an ovulation is very high which is approximate 40%, changed life style...
trend of fast food, stressful environment lack of physical activity are found. No word to word correlation can be made with Ayurveda but it can be understood the broad heading of Yonivyapad. It is Tridoshaja with dominancy of Vata, it is mainly responsible for an ovulation. Sneha is best for pacification of Vata. So, Ghrita was selected for the study. In both the groups i.e. Shamim Ashvattha Ghrita and Go- Ghritahave positive effect of ovulation and conception but rate of conception was less. Shamim AshvatthaGhrita shows better results in ovulation and conception than Go- Ghrita, it may be due its Tridoshasamaka, Rasayana, Balya, and Vrishya properties. So, it is very much effective for ovulation.

Mode of action of Shamim Ashvattha Ghrita

In present study the trial drug is ‘Shamimashvattha’ i.e. Ashvattha has grown itself on the tree of Shami. The direct reference of Shamimashvattha has not been found in the classics expect Atharvaveda. The description of various Aushadhis is given in Atharvaveda. Among them Shamimashvattha is used as a Pusavankrutam and it is indicated for female.

Pusavankrutam denotes Garbhasthpankarma as explained by Acharya Dalhana. (SuSha.2/32 Dalhan.comm.) Lukewarm medicated Ghrita when injected into Uterine cavity increases the blood flow in Uterus, fallopian tube, Ovary and other adjacent organs (Due to Abhyanga, Swedana & local effect) these helps in increasing exposure of follicle to gonadotrophins by the enhanced intraovarian blood flow (according to Dr. Rajan, reproductive endocrinology) which in terms increase the content of FSH & LH receptors has enhancement of FSH & LH action within follicle. This acts by two ways, firstly local interaction between estrogen & FSH within the follicle and secondly with LH surge level of Progesterone continues to raise helps in stimulating the activity of LH, Progesterone proteolytic enzymes leading to increased distensibility of follicular wall which in terms helps in ovulation.

CONCLUSION

Sneha is the best Shamana drug for Vata. ShamimAshvatthaGhrita has Tridoshashamaka property as well as Rasayana, Balya, Vrishya effect. So it is very much effective in infertility. Due to base of Sneha, drug is more effective as Vatashamana when it is used by intrauterine route. Very encouraging result was found in Group A- (ShamimAshvatthaGhrita) on ovulation. 16.67% patients got conceived and 41.67% patients had ovulated. The result is statistically highly significant. In group B (Go- Ghrita) 12.50% patients were conceived. 37.50% patients had ovulated. The result is statistically insignificant. So, ShamimAshvatthaGhrita is more effective than Go- Ghrita in an ovulatory factor of infertility.’

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Source of Support: Nil
Conflict Of Interest: None Declared