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

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ABSTRACT

Infertility is 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 in to two groups, Group-A (N=13) treated with *ShamimAshavatthaGhrita* intrauterine *Uttarabasti* along with *ShamimAshavatthaGhrita* orally and in Group B (N=11) treated with *Go-Ghrita* intrauterine *Uttarabasti* 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 Intrafallopian 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.

Every step involved in the process of Ovulation will have contribution from all three *Doshas.* The function of individual *Dosha* can be understood as:- ***Vata*** stands for proliferation & division of cells (granulose & theca cells). Even in the Ovulatory phase, the rupture of follicle is the phenomenon by the karma of *Vata – VayuVibhajate*[1]. ***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*[2-5]. ***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 *PumsavanamKrutam*[7-14] 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*. *Ashvatha* 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 9^{th} of menstrual cycle up to at least 22^{nd} 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 1: Grouping and Posology

Group	Drug	Dose	Route	Anupana	Duration
A	*ShamimAshvatthaGhrita*	10 gms before meal in morning	Oral	*Godugdha*	2 months
	ShamimAshvatthaGhrita	5 cc	IUUB	-	3 days in a month for 2 cycles
Group B	*Go- Ghrita*	10 gms before meal in morning	Oral	*Godugdha*	2 months
	Go- Ghrita	5 cc	IUUB	-	3 days in a month for 2 cycles

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 2: Effect of therapy

(i)	Conceived	The patient's was conceived after the treatment
(ii)	Complete remission	Ovulation occurred
(iii)	Improved	Ovulation not occurred but only improvement in the size of follicles i.e. 12-19 mm.
(iv)	Unchanged	No change in the growth of the follicle

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 and16-20 mm in 25%.

Results

Table 3: Effect of therapy on follicular size

n=20

Group	N	Mean		X (AT-BT)	%	S.D.	S.E.	t	P
		B.T.	A.T.						
A	12	1.58	3.50	1.92	54.76	1.56	0.45	4.24	<0.001
B	8	2	3.75	1.75	46.67	2.76	0.58	1.79	<0.1

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>0.10).

Table 4: Total effect of therapy on ovulation

n=20

Position of follicle	Group A		Group B	
	No. of patients	%	No. of patients	%
Ruptured	07	58.33	04	50
Unruptured	05	41.67	04	50

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*

n=20

Parameters	Group A		Group B	
	No. of patients	%	No. of patients	%
Conceived	02	16.67	01	12.5
Complete remission	05	41.67	03	37.5
Improved	02	16.67	0	00.00
Unchanged	03	8.33	04	50.00

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 *Pusavanmkrutam* and it is indicated for female.

Pusavankrutam denotes *Garbhasthpankarma* as explained by *Acharya Dalhana.* (Su.Sha.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 gonodotrophins 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.'

REFERENCES

1. Charaka Samhita Chikitsa 12/8 with Ayurveda Deepika commentary by Chakrapanditta edited by Vd. J.T. Acharya published by Chaukhambha Prakashan Varanasi, reprint edition 2007
2. Ayurvediya prasutitantra avam striroga (Vol I & II), by Prof. Premavati Tiwari, Chaukhambha, 2nd edition 1999,
3. Sushruta Samhita with Nibandha samgraha and Nyayachandrika commentaries, edited by Vd. J.T. Acharya, published by Chaukhambha

Surabharati prakashana, Varanasi, reprint edition- 2003,*Sharir Sthan* 2/33
4. Ashtanga Hridaya of vagbhatta with the sarvangasundara of Arunadatta. Ayurveda Rasyana of Hemadri commentaries edited by pt. H.S. Shastri published by Chaukhambha Surabharati prakashana Varanasi, reprint edition 1996.
5. Shrangdhara Samhita - Commentaries of adhamall's Dipika and Kashiram's gudhartha Dipika. Chaukhambha prakashana - 4th edition, 2000.
6. Infertility in Practice by Adam Balen, Howard Jacobs, Alan Decherney-1st edition-1997
7. Atharvaveda pratham bhag 11th *pumsavan suktam* shlok no.1321
8. Textbook of medical physiology by Arthus C Guyton and John E Hall. Post graduate reproductive endocrinology by Dr. R. Rajan - 4th edition reprint in 2004, page no. 363
9. Text book of Gynaecology by D.C. Datta 2nd edition - 1994.
10. Jeffcoate's principles of Gynaecology updated from the fifth edition by Neerja Bhatia - 2001.
11. The infertility Manual edited by Kamini A Rao, 1st edition - 2001.
12. Clinical gynecologic, Endocrinology and infertility by Leon speroff and Marc A Fritz- 7th edition.
13. Nighantu Adarsha by Bapala Vaidya, Chaukhabha Bharati Academy, 1984.
14. Bhavaprakasha Nighantu of Shri Bhavamishra commentary by Chunekar K. C. edited by Pandey G. S. published by Chaukhambha Bharati Academy, Varanasi, reprint 2004.

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