

ROLE OF PIPPALYADI CHURNA IN VANDHYATVA W.S.R TO ANOVULATION

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ABSTRACT

Anovulation is one of the common gynecological problems faced in daily practice. The most common cause of infertility is ovulatory disorder characterized by anovulation or by infrequent & / or irregular ovulation. Ovulation failure is not only headache of this era but also was a problem in the ancient period. All Acharyas have mentioned *Beejadosh* with *Beejopaghata* as the factor for *Vandhyatva*. *Ashtartavadushti* i.e. physiological and pathological abnormalities of *Artava* are direct cause of the *Beejopaghata*, is described by all Acharyas. In conventional medicine there are treatments like clomiphene citrate for ovulation induction, but most of them have side effects. So there is necessity in Ayurveda to find out therapy which could contribute for the treatment of anovulation. 30 patients being diagnosed with anovulatory cycles according to inclusion & exclusion criteria were given *Pippalyadi churna* 1 *masha* to 2 *masha* along with *ghrita* for three consecutive cycles. Entire patients were assessed clinically, pathologically & sonographically before treatment & after treatment & finally the results were analyzed statistically before treatment & at the end of three cycles. During the treatment no severe side effects were observed.

Keywords: *Anovulation, Vandhyatva, Pippalyadi churna*

INTRODUCTION

Infertility was attached with a lot of social stigma during the period of Charaka. Infertile couples were considered as shade less, branchless, fruitless waste tree or like a lamp in a picture or portrait which will not emit any light or brightness. *Vandhyatva* (female infertility) is a common problem in clinical practice, and diagnostic assessment is important for making the right treatment decisions. In Ayurvedic classics, all the gynaecological disorders are included under

twenty *yonivyapadas*. *Vandhyatva* is one among the *yonivyapada*. All the four factors namely *Rutu*, *Kshetra*, *Ambu* and *Beeja* are of prime importance for conception according to Acharya Sushruta. Here the *beeja* is taken as *Antahapushpa* i.e. ovum. So anovulation can be included under *Beejadushti*. According to FIGO manual ovarian factor contributes to 15-25% of female infertility. So it is the second common cause of infertility. Ovulatory cause is an

important subset in infertility among women, accounting for about 40% of cases (Infertility of Leon Sperrof et.al). Anovulation or inability to produce fertile ovum is an important cause among women with infertility. Ovulation refers to the physical act of rupture of the follicle with the extrusion of the oocyte. When the follicle does not rupture ovulation fails and it is called anovulation. There can be anovulation or severe oligo ovulation. In the latter case even though ovulation does occur, its relative infrequency decreases the woman's chance of pregnancy. Over the years there has been a significant increase in infertility and childlessness. In conventional medicine there are treatments like clomiphene citrate for ovulation induction, but most of them have side effects. Assisted reproductive techniques are only provided in private centers and are very expensive. There are many advanced therapies of ART such as hormonal therapy, IVF, ET, GIFT etc. but they have unsatisfactory results involving enormous expenses and lots of side-effects like ovarian hyper stimulation, frequent abortion, multiple gestations and major long term possibility of ovarian cancer etc.

Ayurveda is a proven age old science of life and it has its own natural scientific approach regarding to line of treatment. Lots of causes of Vandhyatva are given in Ayurvedic text including Nastabeejata or Anovulation. Nowadays people have accepted Ayurveda and endorsed their faith in this branch of medicine, which occupies its prominence in the naturally available herbs. These untouched therapies and medicinal concepts are lying idle in Samhitas

and wanting to be tapped in today's highly scientific world of medicine. It is our meaningful effort coupled with lots of innovative ideas to aim towards uncovering this medicinal concept towards Anovulation. God willing this may prove to be an accepted concept in the coming years. Mandagni is said to be the cause of formation of ama and subsequently vyadhi (Anovulation). Due to ama, rasa dushti (poshanatmakadushti) can cause anovulation. The vitiated apanavayu and kapha when get mix can cause avaranatmakadusti causing Anovulation. The vitiated Vata along with Pitta causes the artavakshaya i.e. kshayatmakadusti causing Anovulation. So, this compelled us to think that the drug which are fruitful for Agnimandya i.e. deepana and pachana drugs may also be useful for anovulation. Keeping this hypothesis in mind and the reference of BhaishajyaRatnawali, we planned to carry out some research.

AIM AND OBJECTIVES:

1. To study the disease Stree Vandhyatva in detail.
2. To assess the impact and consequences of Pippalyadi churna orally on Stree Vandhyatva

DRUG REVIEW:

Pippalyadi Churna (Pippali, Shunthi, Maricha, Nagkeshara) is administered orally in the dose of 1gm-2gms BD with Ghrita for 15 days (from 5th day of menses up to 19th day) for 3 consecutive cycles, assessment done after each cycle.

PIPPALI¹:

Guna- Laghu, Snigdha, Tikshna
Rasa – Katu.
Virya – Anushna
Vipaka – Madhura
Karma - Dipana, Vrshya, Rasayana
Dosha – Vata Sleshmahara

SHUNTI³:

Guna- Laghu, Snigdha
Rasa – Katu

MARICHA²:

Guna- Laghu, Tikshna
Rasa – Katu
Virya – Ushna
Vipaka –Katu
Karma - Dipana, Pramathi
Dosha – KaphaVatahara

NAGAKESHARA:

Guna- Laghu, Ruksha
Rasa – Kashaya, Tikta

Virya – Usna

Vipaka –Madhura

Karma - Dipana, Bhedana

Dosha- VataKaphahara

Virya –Ushna (Ishat)

Vipaka –Katu

Karma: Pramathi, Grahi, Pachana, Sothahara

Dosha: *Kapha Pittashamaka*

MATERIAL AND METHODS

SELECTION OF PATIENTS:

It is a Single Blind clinical study. 30 patients will be selected on the basis of simple randomized sampling method as per inclusion criteria. Separate charts and case sheets will be prepared as per norms of the selection criteria. Research will be conducted under the supervision of guide

CRITERIA FOR SELECTION OF PATIENTS:

INCLUSION CRITERIA:

1. Married woman, Age group between 20-35 years.
2. Primary and secondary infertile patients with Anovulatory cycles.
3. Anovulatory cycles with or without PCOD.

EXCLUSION CRITERIA:

1. Systemic diseases like TB, DM, hyperthyroidism and hyperprolactinaemia, STDs, HIV, HBsAg.
2. Congenital anomalies of reproductive organs.
3. Benign and malignant tumors of reproductive organ.
4. Menorrhagia, Metrorrhagia, DUB

STUDY DESIGN/ MANAGEMENT OF PATIENTS:

For the present clinical study, 30 patients will be selected on the basis simple randomized sampling method according to inclusion criteria under a single group.

Medicine: *Pippalyadi churna (Pippali, Shringber, Marich, Nagakeshar)*⁴

Route: Orally

Anupana: Ghrita

Dose: 1-2gms bd before food

Follow up: Patient was asked to come for follicular study on 12th, 14th, 16th, 18th & 20th day of cycle

or till ovulation every month for 3 cycles, and progress is noted on the basis of assessment criteria before and after treatment on every follow up in a specially prepared case sheet. Evaluation of symptoms will be done before treatment after 1st cycle, 2nd cycle and 3rd cycle.

ASSESSMENT CRITERIA:

Objective parameters:

- Follicular study.

ASSESSMENT SCALE

- Fertility will be assessed by absence of menstruation or amenorrhea followed by positive U.P.T.

CLINICAL ASSESSMENT SCORING METHOD:

The changes observed in the signs and symptoms were assessed by adopting suitable scoring method and the objective signs by using appropriate clinical tools. The details of scoring pattern adopted for assessment of subjective and objective parameters is as follows:

Scoring Pattern of Follicle Score 0 = No dominant follicle

Score 1 = Follicle size up to 10 mm

Score 2 = Follicle size ranging from 11-15mm

Score 3 = Follicle size ranging from 16-20mm

Score 4 = Follicle size ranging from 21-30mm

Score 5 = Rupture of follicle (For this scoring method, consecutive three cycles serial TVS were carried out to diagnose anovulation.)

OVER ALL EFFECT OF TREATMENT ON ANOVULATION

The overall effect was graded into 5 types. No response to Therapy 0%

Mild response to therapy 1 – 25%

Moderate response to therapy 25.1% - 50%

Fair response to therapy 50.1% - 75%
 Good response to therapy 75.1% - 100%

OBSERVATIONS

For current project work of *Pippalyadi churna* oral treatment package in total 30 patients suffering from *Vandhyatva* with special reference to Anovulation, fulfilling the both inclusion and exclusion criteria

were registered. The observations and the results of the therapy were statistically analyzed by following methods.

- A) Descriptive observational Statistical Analysis.
- B) Assessment of the effect of *Pippalyadi* oral medication in the patients of *Vandhyatva*, by adapting paired 't' test.

EFFECT ON OBJECTIVE PARAMETER:

Table 1: Effect of *Churna* on Follicular Study:

Total no. of patients	BT	AT	MEAN	%	Paired t test				Result
					S.D.±	S.E±	t	P	
30	1.4	AT 1	0.6	43.75	0.8051	0.20	3.03	P<0.001	H.S
		AT 2	0.4	62.00	0.143572	0.1143	11.86287	P<0.001	H.S
		AT 3	0.3	71.875	0.253708	0.0655	12.699	P<0.001	H.S

The patients showed increase in the follicular growth during, after treatment and after follow up i.e. 0.6, 0.4 and 0.3 respectively with comparison to initial mean score i.e. 1.4. The average percentage was

43.75% in immediate after treatment and 62%, and 71.85% in immediate after follow up. On statistical analysis it was found to be highly significant at the level of P <0.01.

Table 2: Overall effect of *Churna* on the basis of Follicular Study

Treatment Response	Total effect of treatment in %	Total no. of patients	%
No response to therapy	0%	5	16.66
Mild response to therapy	1%-25%	1	3.33
Moderate response to therapy	25.1%-50%	5	16.66
Fair response to therapy	50.1%-75%	1	3.33
Good response to therapy	75.1%-100%	18	60

The assessment of the overall effect of treatment revealed that out of 30 *vandhyatwa* Patients 18(60%) patients have good response, 1 (3.33%) patient has Fair response, 5 (16.66%) patients have moderate

response, 1 (3.33%) & 5 (16.66%) patients have Mild & No response respectively in this clinical trial. All the patients studied in this *Pippalyadi choorna* on *vandhyatwa* are on the basis of follicular study.

Table 3: Total effect of *Pippalyadi Churna* in *Vandhyatwa* w.s.r. to Anovulation

PARAMETERS	NO. OF PATIENTS	%
Conceived	02	6.66
Complete remission	16	53.33
Improved	06	20
Unchanged	06	20

The assessment of the role of *Pippalyadichurna* in *Vandhyatva* w.s.r. to anovulation was among 30 patients of anovulatory cycles and infertile 2 (6.66%)

patients had conceived, 16 (53.33%) patients had shown complete remission, 6 (20%) patients had

shown improvement and remaining 6 (20%) patients it was unchanged.

DISCUSSION

Properties of Pippalyadi Churna:

The drugs used in Pippalyadi churna mostly contain *Katu rasa, Laghu, Snigdha, Tikshna guna, Ushna virya, Madhura* and *Katu vipaka*. It can be said that due to *Laghu guna* it is easily absorbable and it can enter every part of the cells easily. *Madhura vipaka* is suitable for body and it increases the rasa and also helps in formation of *Shukra*. It has *vataghna* property having *Tarpana* and *Brimhana* karma.

So by these qualities, it nourishes the body. It has also regeneration capacity. Due to proper nutrition and *vatanulomana* follicle starts to get mature as we observed increase in size of follicle and after getting maturity rupture of follicle also occurs.

This is the probable mode of action of drugs because *Acharya Charka* said that *dravya* can act by its *rasa, guna, virya, vipaka* and *prabhava*.

DISCUSSION ON CLINICAL STUDY:

- It was clearly found that Out of 30 patients of *Vandhyatwa* studied in this project work, maximum 40% (12) patients belonged to the age group of 26-31 years. By this data it reveals that age is inversely proportional to the age of the woman that is as the age increases the fertility rate will be decreases. Here in my clinical study found that woman's are in between the age group 26-35yrs i.e. 22 patients found to be infertile.
- Among 30 patients of *Vandhyatwa* research study maximum number of patients i.e. 63.33% (19) had underwent hormonal treatment. The 19 patients are underwent hormonal treatment in the form of induced folliculogenesis and, hence are found to be resistant to the follicle induction and failure in rupture of follicle in time. So might be the reason for continued infertility.
- Among 30 patients of *Vandhyatwa* research study maximum number of patients i.e. 26.66% (08) were having irregular menstrual cycle,

Among 30 patients of *Vandhyatwa* research study shows both maximum and minimum patients were equally distributed i.e. 50%(15) are having painful menstruation. Among 30 patients of *Vandhyatwa* research study shows maximum no. of patients i.e. 30 %(9) were have the history of interval of menstruation as 31-36 days cycle. Hence by seeing this menstrual history we can notice that, irregular menstruation with painless, scanty, and duration of inter menstrual days will be more; by all these we can conclude that patient is having deranged HPO axis and anovulatory cycle.

- In this 30 of *vandhyatwa* patients research work, Minimum 43.33% (13) patients in the study belonged to *Vata pitta Prakriti*, whereas remaining patients of 56.67% (17) were reported in *Vata-kapha* group, *Vandhyatwa* is caused by *vata* and *kaphadoshaprakritis*, hence in this study it was found that the most of *vata-kapha prakriti* woman are affected by *vandhyatwa*. *Vata-kaphadoshas* are main *dosha* to cause the *vandhyatwa*, which vitiates *artavaha srotas*, cause *Srotosang* and *apanavayuavarodha* that is which forms the *artavaha srotosanga*, and *aavarana* will makes the woman to remain infertile.

CONCLUSION

- Infertility is a condition where the couple does not conceive after one or more years of regular & unprotected intercourse.
- Though the defect in process of fertilization lies in both partners, the female is responsible to 30% of cases. Commonly the lacuna in female reflects as irregular & scanty menstruation which is suggestive of Anovulation, thus contributes 20% cases.
- It can be concluded that *Pippalyadi churna* shows significant results in managing anovulation. No untoward effects were observed in patients.

- The method of treatment applied was simple, economical and required no hospitalization and could be done at OPD level.
- After treatment it was found that most of the patients had ovulation, two patients conceived & many patients relived of menstrual symptoms like oligomenorrhoea. However efficacy of the drug may be fully established with a large sample size in further research.
- In conclusion, *Pippalyadi churna* is effective in the Management of *vandhyatva* w.s.r to anovulation.

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