

# Analytical Study of Dadimadi Gritha and Its Efficacy on Vandhyatva w.s.r to PCOD – An Experimental Perspective

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**Abstract**—Infertility has been declared as global health issue by WHO. It is known to affect one out of six couples during their life time. Adding to the emotional and physical toll caused by infertility, also the financial burden during treatment of the disease is high. PCOD affects majority of women in reproductive age because of lifestyles. In Ayurveda Infertility or the non-occurrence of pregnancy (Anupa labdhi of garbha) are caused by menstrual abnormalities (Artava dosha) and an absence of ovum (Abeejam bhavati)<sup>2</sup>. Dadimadi Gritha mentioned in pandu cikitsa taken for study. Here attempt has been made to evaluate the Analytical and Experimental study of Dadimadi Gritha in vandhyatva mainly PCOD.

**Keywords**— Dadimadi Gritha, vandhyatva, sneha kalpana, PCOD.

## I. INTRODUCTION

**A**yu means life and veda means knowledge, so Ayurveda deals with knowledge of life. In Ayurveda the average age of humans are divided into three phases – Bala, Madhyama and Jeerna. Madhyama is again divided into four stages – Vridhi, Youvana, Sampurna and Parihaani. Among them Youvana is the most fertile period. Because of modern life style there is an imbalance in trayopasthamba ie, ahara, nidra and brahmacharya, causes many health related issues. One that commonly affects the women of reproductive ages is PCOD. The term vandhyatva (Female Infertility) is considered as one of the vatik disorders among 80 types of vata vyadhi in Ayurvedic texts<sup>3</sup>. In Ayurveda this condition is managed with multiple concepts of correcting the states of Dhatus and Doshas<sup>4</sup>. In PCOD, the condition is marked by an accumulation of Kapha and Medo doshas, leading to the formation of granthis (cysts) in the ovaries. These granthis develop due to a blockage (sangha) in the srotas (channels) caused by the guru and snigdha qualities of Kapha dosha. This Kapha-related obstruction inhibits the normal flow of menstrual fluid, resulting in artavarodha (disruption of menstrual function)<sup>5</sup>. There is a great scope of research in ayurveda to find out some appropriate and effective solution for this problem.

## II. AIMS & OBJECTIVES OF STUDY

- 1) To pharmaceutically prepare Dadimadi gritha mentioned in Ashtanga Hridaya by standard operating procedures.
- 2) To evaluate efficacy of Dadimadi gritha analytically.
- 3) To evaluate experimentally the efficacy of prepared Dadimadi gritha in PCOD.

## III. MATERIALS & METHODS

1) **Drug Review:** References of Dadimadi ghritha are collected from Ashtangahridaya<sup>6</sup>, Charaka samhitha<sup>7</sup>, Bhavaprakasha<sup>8</sup> and Bhaishajyaratnavali<sup>9</sup>.

2) **Pharmaceutical Review:** The formulation of Dadimadi Gritha was prepared in the pharmacy attached to the institute. The standard operating procedures of sneha Kalpana was followed.

3) **Analytical Review:** The formulation was sent for analytical study to SDM college of research in ayurveda and allied sciences.

4) **Experimental Review:** Facilities of pharmacognosy, laboratory and animal house - the SDM college for research in ayurveda and allied sciences at Udupi was utilised.

### Preparation of Test Drug:

Ingredients and quantity taken for Dadimadi Gritha

No.	Ingredients	Parts
1	Dadima	144gm
2	Dhanyaka	36gm
3	Chitraka (purified)	18gm
4	Sringavera (shunti)	18gm
5	Pippali	9gm
6	Gritha (Go Gritha)	880ml
7	Water	3.5li

Dadimadi Ghritha is prepared according to snehakalpana mentioned in Sarangadhara Samhita<sup>14</sup>. In the ratio of 1:4:16 ie, 1 Part of 'kalka dravya', 4 Parts of 'sneha dravya', 16 Parts of 'drava dravya'.

IV. EXPERIMENTAL STUDY

An experiment study with pre-test and post-test design were minimum of 18 rats Weighing between 180-250gms were selected. The rats were made into 3 groups-control, standard and Test containing 6 rats each.

Grouping of Albino rats

Group	Normal control	Positive control (standard)	Test
Drug Used	Distilled water	Letrazole	Letrazole + Dadimadi Gritha

The treatment period was 21 days. During this period vaginal smear was collected daily for estrogen cycle determination. On the day subsequent to last letrazole dose administration, rats were sacrificed. Uterus and ovaries were excised and weighed. Estrogencycle, progesterone cycle and histopathological changes in ovaries and uterus were examined

V. ANALYTICAL STUDY

Standardization Parameter of Dadimadi Gritha

Parameter	Results n = 3 %w/w
Acid value	3.88
Saponification value	240.23
Iodine value	24.32
Peroxide value	0.0

Histopathology Report:

- ▶ Ctl: Ovarian follicle in different stages of development seen in stroma. Few degenerating follicles and corpus luteum of different cycles seen.
- ▶ PC: Most of the slides show atrophy ovary with many atretic follicles, cystic follicles and absence of growing follicle.
- ▶ TC: Most of the slides show atrophy ovary with many atretic follicles, cystic follicles and absence of growing follicle. compared to ctl there is increase in degenerating follicles and reduced growing follicle. Corpus Luteum is reduced in compared to ctl. Compared to PC there is slight reduction in atretic follicles.

VI. DISCUSSION

The control group was compared with positive control and treatment control and inference was made using statistical Analysis. It shows that Letrazole has induced PCOD and arrested the estrus cycle of rats in various phases. In treatment

group were Dadimadi Gritha is given, there are much improvements in the estrus cycle and ovulation. In case of estrogen and progesterone there is increased secretion in treatment group shows the occurrence of estrus cycle. Aestrogen is secreted in follicular phase and after ovulation corpus luteum secretes progesterone. There are chances of fertility if the cyst doesnt block ovulation. But in case of ovarian cyst there is no significant change when compared to treatment group shows that Dadimadi Gritha can normalice the irregular estrus cycle but can't act on the cyst formed.

VII. CONCLUSION

1. According to classical reference, *Dadimadi Gritha* mentioned in *Ashtanga Hridaya* is Indicated in *pandu, Arsa, Gulma, Muda vata, Dukha prasavini* and *Vandhya*.
2. *Dadimadi Gritha* is freshly prepared in the laboratory for the study
3. Experimental study was carried out to evaluate the efficacy of the *Dadimadi Gritha* in PCOD by using Wistar albino rats,
4. The study indicates that the *Dadimadi Gritha* is effective in inducing ovulation by increasing estrogen and progesterone secretion but it doesn't have much action on reducing the size of the cyst.

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