



## Research Article

**EFFICACY OF PHALA-GHRITA ON FEMALE INFERTILITY**Shalini Biala<sup>1\*</sup>, Ranjana Tiwari<sup>2</sup>

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Email: [shalini.biala@yahoo.co.in](mailto:shalini.biala@yahoo.co.in)**ABSTRACT**

The present study was carried out to evaluate the role of *Phalaghrita snehapana* in the treatment of female infertility. 45 female patients in reproductive age group who were unable to conceive after one year of regular unprotected coitus were registered for the treatment. The patients of primary as well as secondary infertility were registered. The patients with any form of active infection or chronic diseases were excluded. The causes of infertility in patients were confirmed by clinical as well as investigation findings. The causes of infertility thus determined were tabulated. Menstrual irregularities were also tabulated. *Phalaghrita* was administered orally in the dose of 20 ml twice a day for 3 months continuously to all the patients. Out of the above 45 patients 3 left during the course of treatment. The effect of *Phalaghrita* administration on the causes of infertility as well as menstrual irregularities, after the completion of treatment was noted. The drug did not showed any significant effect on the causes of the infertility, but improved a single case of PCOD, percentage of relief was 12.50% and provided significant relief in disturbance of menstrual cycle, the percentage of relief was 23.80%. The results of this study showed that 21.43% patients of this study conceived by the *Phalaghrita snehapana*. No significant complication or adverse effects of drug administration was noticed during the study.

**INTRODUCTION**

Female infertility is known as *Vandhyatva* in Ayurveda. Female infertility affects an estimated 48 million women<sup>1</sup>. Failure to achieve conception by a couple of mature age, having normal coitus during appropriate period of menstrual cycle, regularly, at least for one year is termed as infertility<sup>2</sup>. Eighty percent of the couples achieve conception if they desire so within one year of having regular intercourse with adequate frequency (4-5 times a week). Another ten percent will achieve the objective by the end of second year. As such 10 percent will remain infertile by the end of second year. The male is directly responsible in about 30-40 percent, the female in about 40-55 percent and both are responsible in about 10 percent cases.<sup>3</sup> According to Ayurveda successful pregnancy is the outcome of four prime factors *Rutu* (season or fertile period), *Kshetra* (healthy yoni, uterus and passage, reproductive organs), *Ambu* (proper nutrient fluid, clarity or normalcy of psychology, properly functioning *Vayu*, normal nervous system, and *Shadbhavas*, i.e. mother, father, *Atma*, *Satmya*, *Satwa* and *Rasa*) and *Beeja* (sperm and ovum).<sup>4</sup> Even if one of the conditions is not

met in right time pregnancy may not happen. Infertility is not an independent disease, rather a cardinal feature of so many diseases.<sup>5</sup> According to WHO report about 2-10% couples worldwide are unable to conceive primarily and about 60-80 million couples in the world are infertile.<sup>6</sup> *Vandhyatva* (infertility) is described in a very wide spectra.<sup>7</sup> Many drugs, therapies and protocols have been explained in Ayurvedic texts and *Snehapana* is one among them. Hence *Phalasarpi (ghrita)* was selected for this study as it can be administered both orally and as *Basti* to evaluate its effect in female infertility.

**Aims and Objectives**

To evaluate the efficacy of oral administration of *Phala-ghrita* in the treatment of female infertility.

**Materials and Methods**

45 patients of reproductive age group, attending the outpatient and in-patient of the department of Prasootitantra and Striroga, Major S. D. Singh P. G. College & Hospital, Farrukhabad, fulfilling

the criteria for diagnosis and selection were incorporated into the study. For the preparation of *Phalaghrita* raw drugs were purchased from the local markets of Farrukhabad and Kanpur district, U.P., India. Under the supervision of Dravyaguna specialist. *Phalaghrita* was prepared in the pharmacy of Major S. D. Singh P. G. College & Hospital, Farrukhabad.

### Diagnostic Criteria

Female patients of reproductive age group who failed to conceive even after one year of regular unprotected coitus and their respective husbands were having normal semen analysis.

### Inclusion Criteria

Female patients of both primary and secondary type of infertility. Age group of 18 to 42 years.

### Exclusion Criteria

Patients having any urogenital infection, suffering from any chronic debilitating disease, sexually transmitted diseases, human immunodeficiency virus (HIV), hepatitis B, contagious diseases were excluded from the study.

Routine hematological investigations, HSG, USG abdomen pelvis and urinary analysis were done before and after the treatment.

### Properties of *Phalaghrita* and reference

*Sharangadhara*, *Vagabhatta*, *Yogaratanakara* and *Bhavaprakash* mentioned *Phalaghrita* in the treatment of *Vandhyatva*.<sup>9-13</sup> *Vandhyatva* is a *Vata* dominated *Sannipataja vyadhi*.<sup>14</sup> *Ghritha* is *Tridoshaghna*<sup>15</sup> due to its properties and milk is also *Vata-pitta shamaka*, *Jivaniya* and *Rasayana*<sup>16</sup>. So, *Phala-ghritha* has the properties of *Ghritha*, milk and other ingredients. *Phala-ghritha* contains mainly *Tikta*, *Madhura* and *Katu rasa*, *Laghu*, *Snigdha*, both *Katu* and *Madhuravipaka* and also *Ushna* and *Sheetavirya*. It also has *Dipana*, *Pachana*, *Lekhana*, *Anulomana*, *Shothahara*, *Krimighna*, *Balya*,

*Prajasthapana* and *yoni Pradoshanashaka* actions. Hence this drug was selected for oral administration in the present study.

### Method of preparation of *Phalaghrita*

All the raw drugs listed in table 1 are made into a paste by pounding separately. Now 12 gms of paste of each of the raw drug is taken. To this is added 768 gms of *Ghritha* of cow 3.072 liters of cow milk is added. All are cooked over low fire of cow dung cakes, till the *Ghrithapaka sidhhilakshana* (*Phenashanti*, disappearance of froth formation). The prepared *Ghritha* was kept in a copper utensil.<sup>9</sup>

### Treatment Protocol

The patients were counselled and given instruction about the procedure. 20 ml of lukewarm *Phalaghrita* was given to the patient at 10 am and at 7 pm followed by two to three sips of hot water. The patient was advised to take light food. This treatment protocol was continued for a period of three months.

### Follow-up study

A follow-up study for pregnancy was carried out for six months after completion of the treatment. Any new complaint that emerged during the follow-up period related to the study was also noted.

### Chemical Analysis of *Phala Ghritha*

*Phalaghrita* was analyzed pharmaceutically. The organoleptic observations showed that it is a greenish yellow in color, pleasant in odour and astringent in taste. The results of the physicochemical analysis showed that its refractive index is 1.47; weight per ml at 40 degree centigrade is 0.9201gm, Acid value is 2.935, Saponification value is 210.54, Iodine value is 33.15 and Peroxide value is 2.125, Moisture 0.155%, Total ash 0.197%, AIA 0.098%, Alcohol soluble extractive 18.65%, Hexane soluble extractive 72.4%, Free fatty acid 1.69%.

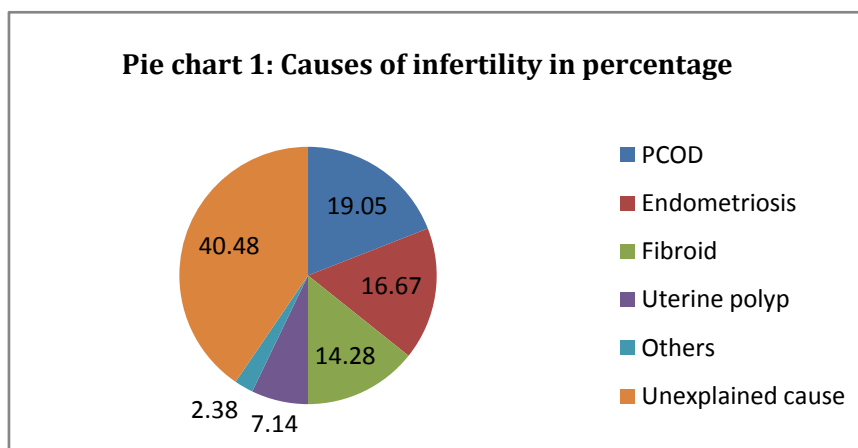
**Table 1: Ingredients of *Phala-Ghritha* with their quantity**

S. No.	Name of the Ingredient	Quantity of the Ingredients
1.	<i>Manjistha- Rubiacardifolia</i>	12gms
2.	<i>Kushta- Saussurealappa</i>	"
3.	<i>Tagara- Valerianawallichi</i>	"
4.	<i>Sharkara- Sugar</i>	"
5.	<i>Vacha- Acoruscalamus</i>	"
6.	<i>Haridra- Curcuma longa</i>	"
7.	<i>Daruharidra- Berberisaristrata</i>	"
8.	<i>Madhuka- Glycirrhizaglabra</i>	"
9.	<i>Meda- Polygonatumcirrhifolium</i>	"
10.	<i>Triphala- Haritaki, Vibhitaki, Amlaki</i>	"
11.	<i>Dipyaka- Trachyspermumroxburghianum</i>	"
12.	<i>Katurhini- Picrorrhizakurroa</i>	"
13.	<i>Payasya- Ipomeamauritiana</i>	"
14.	<i>Hingu- Asafoetida</i>	"
15.	<i>Kakoli- Roscoeaprocera</i>	"
16.	<i>Vajigandha- Withamniasonnifera</i>	"

17.	<i>Shatavari- Asparagus racemosus</i>	“
18.	<i>Ghrita- Ghee</i>	768 gms.
19.	<i>Kshira</i>	3. 072 liters

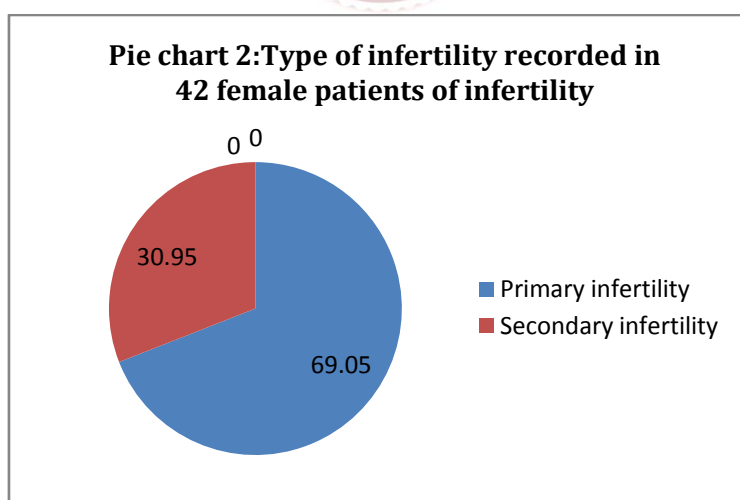
**Table 2: Causes of Infertility Recorded in 42 Female Patients of Infertility**

Cause	No. of patients	Percentage
PCOD	8	19.05
Endometriosis	7	16.67
Fibroid	6	14.28
Uterine Polyp	1	2.38
Others	3	7.14
Unexplained Cause	17	40.48



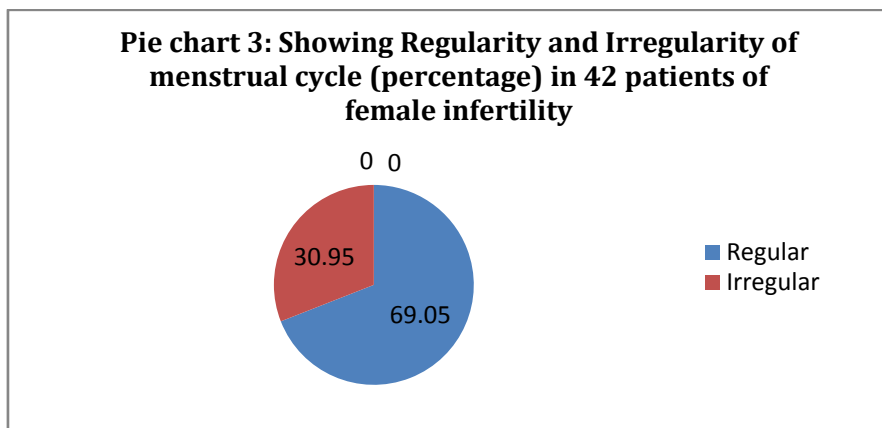
**Table 3: Type of Infertility Recorded in 42 Female Patients of Infertility**

Type of Infertility	No. of patients	Percentage
Primary Infertility	29	69.05
Secondary Infertility	13	30.95



**Table 4: Abnormality in menstrual cycle Recorded in 42 Female Patients of Female Infertility**

Abnormality	No. Of Patients	Percentage
Regular	29	69.05
Irregular	13	30.95



**Table 5: Effect of *Phala-Ghrita Sneha-Pana* on the Causes of 42 Female Patients Infertility**

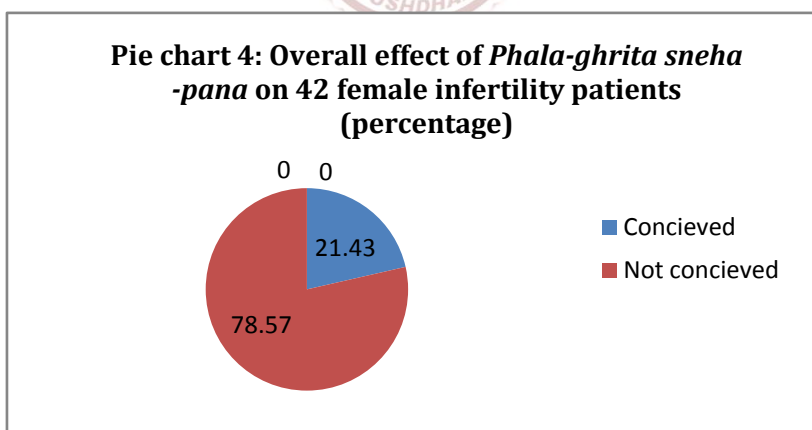
Cause	No. of patients before treatment	No. of patients after treatment	Percentage relief
PCOD	8	7	12.5
Endometriosis	7	7	0
Fibroid	6	6	0
Uterine polyp	1	1	0
Others	3	3	0

**Table 6: Effect of *Phala-Ghrita Sneha-Pana* on the Menstrual Cycle of 42 Female Patients Infertility**

Abnormality	No. of patients before treatment	No. of patients after treatment
Regular	29	39
Irregular	13	3

**Table 7: Overall Effect of *Phala-Ghrita Sneha-Pana* on the 42 Female Patients Infertility**

Effect	No. of patients	Percentage
Conceived	9	21.43
Not Conceived	33	78.57



**OBSERVATIONS AND RESULTS**

45 female patients of infertility were registered for this treatment out of which 42 patients completed the course of treatment and three patients left due to their personal family problems. The registered patients were examined clinically. Clinical investigations were performed to underline the exact cause of infertility. The reports pertaining to the causes, types of infertility and condition of menstrual cycle are shown in the table 2 pie chart 1, table 3 pie chart 2 and table 4 pie chart 3 respectively. The effect of the therapy on the causes of the infertility is given in

Table-5 and Table-6 shows the effect of the drug on the menstrual cycle. The consideration of overall effect of the oral administration of *Phala-Ghrita* showed that 21.43% patients become were pregnant after the treatment (Table-7 and Pie chart-4)

**DISCUSSION**

Forty two female patients of both primary and secondary type of infertility in the age group of 18 to 40 years (reproductive age) were studied in this group. *Phalaghrita* has been attributed *Prajasthapaka* (establishes fetus) and *yoni Pradoshanashaka* (cures vaginal dysfunctioning) actions. Hence *Phala-ghrita*

was selected to evaluate its efficacy in the management of female infertility. *Phala-ghrita* was administered orally in the dose of 20 ml twice a day continuously for three months. Most of the patients (69.05%) of this group were having their regular menses period (Table-4 and Graph-3) and were of primary infertility (69.05%) as shown in Table-3 and Graph-2. The investigation for the cause of the infertility showed that most of the patients (40.48%) had no explainable cause but 19.05% patients were having PCOD, 16.67% were having endometriosis, 14.28% were having fibroid, 2.38% patients were having uterine polyp and 7.14% were having other causes (smoking, thyroid dysfunction and obesity) (Table-2 and Figure-1). The results of the three months oral administration of *Phala-ghrita* showed that 21.43% patients were pregnancy by the treatment while 78.57% did not conceived (Table-7 and pie chart-4). The drug did not showed any significant effect on the causes of the infertility, but improved a single case of PCOD, percentage of relief was 12.50% and provided significant relief in disturbance of menstrual cycle (Table-6), the percentage of relief was 23.80%. The results are encouraging though percentage of the females who conceived by the treatment is low. Previously, Phala-ghrita for three months helped 20% patients of female infertility got pregnancy.<sup>17</sup>

#### CONCLUSION

Oral administration of *Phala-ghrita* for three months helped nearly 22% patients of female infertility got pregnancy. No adverse side effects were observed during and after treatment. The results are encouraging but rate of conception is low. Hence it is suggested to plan further study by giving the drug in other modality of administration and should be carried out on a large scale so that satisfactory results are obtained.

#### REFERENCES

1. Mascarenhas, M. N., Flaxman, S. R., Boerma, T., Vanderpoel, S., Stevens, G. A. (2012). "National Regional, and Global Trends in Infertility Prevalance Since 1990: A Systemic Analysis of 277 Health Surveys" PLOS Med (9;12) e1001356.
2. Dutta's D. C. Textbook of Gynaecology including contraception 6<sup>th</sup> ed. New Delhi: New Central Book Agency (p) Ltd 2013. Pg. 217.
3. Ibid Dutta's D. C. 6<sup>th</sup> ed. Page 217.
4. Sushruta: Sushruta Samhita with Dalhanaa commentary. Edited by Jadavji Trikamji Acharya. Chaukhambha Orientalia, Varanasi. Sushruta Sharira 2:33, page 348.
5. Tiwari P. V. Ayurvediya Prasutitantra Avam Striroga, part 2, Chaukhambha Orientalia Varanasi, page 274.
6. WHO Guidelines, Wikipedia on female infertility.
7. Hareeta: Haritasamhita, Hindi translation by jayamini Pandey. Caukhambha Vishvabharati Varanasi, Triteeya Sthana 48:1-6
8. Vagbhata: Ashtanga Sangraha, Hindi translation by Atridev Vidyalkankara Chaukhambha Varanasi. Ashtanga Sangraha Uttarantra 39:81pg no 340.
9. Sharangdhara, Sharangdhara Samhita by Pandit Sarangdharacharya with Commentary Adhamalla's dipika and Kasirama's gudharthadipika, edited by Pandit Parasurama Sastri, Vidysagar, Chaukhambha orientalia, Varanasi, 2008 edition, Pp398, pg no. 221.
10. Vahat or Vrddha Vagbhata, Astanga Sangraha with Sasilekha Sanskrit commentary by Indu, edited by Dr. Shivprasad Sharma, Chowkhambha Sanskrit Series Office, Varanasi, 2008, Pp 965, pg no. 841.
11. Vagbhata, Astanga Hridayam with Nirmalahindi Commentary, edited by Dr. Brahmananda Tripathi, Chaukhambha Sanskrit Pratishthan, Delhi, 2012 edition, Pp1295, pg no. 1142.
12. Yogaratakara with Vidyotini Hindi Commentary by Vaidya Laksmipati Sastri, edited by Bhisagratna Brahmasankar Sastri, Chaukhambha Prakashan, Varanasi, edition 2010, Pp 504, pg no. 408.
13. Bhavamisra, Bhavaprakasa, vol. 2, Commentary by Dr. Bulusu Sitaram, Chaukhambha Orientalia, Varanasi, edition 2010, Pp 770, pg no. 696.
14. Sushruta: Sushruta Samhita with Nibandhasangraha commentary of Dalhanaa Edited by Jadavji Trikamji Acharya. Chaukhambha Orientalia, Varanasi. Uttarantra 38:18. page. 669
15. Charaka: Charaka Samhita with Chakrapani Ayurveda Deepika commentary. Edited by Yadavji Trikamji Acharya, Nirnaya Sagar Press Bombay. Nidana 1:39
16. Vagbhata: Ashtanga Hridayam with commentaries of Arunadatta and Hemadri, collected corrected by Anna Mareshwar Kunte. Reprinted by Chaukhambha Krishnadas Academy, Varanasi. Sutra 5:21
17. Shylaja Kumari: A Clinical Study on Phala-Ghrita In Female Infertility Journal of Ayurveda Physicians & Surgeons (JAPS) | Aug, 2014| Vol 1| Issue 1

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