

A PILOT STUDY OF EFFICACY OF *GARBHAPRAD YOG* IN ENDOMETRIAL THICKNESS

Riddhi Acharya¹, Mangesh Patil²

¹PG Scholar, ²Associate Professor;

Prasuti tantra stri rog department, YMT Ayurvedic Medical College & PG Institute, Kharghar, Mumbai-410210, Maharashtra, India

Email: rid1991@yahoo.com

ABSTRACT

Infertility is generally considered as one year of unprotected regular coitus without conception. Factors from either or both partners may contribute to difficulties in conceiving; therefore it is important to consider all possible diagnosis before pursuing treatment. The overall incidence of infertility has remained relatively unchanged over the past 3 decades. However the evaluation and treatment of infertility have changed dramatically during time. The main causes of female infertility includes ovulatory disorders, uterine factors etc. Basic investigation that should be performed before starting any infertility treatment is confirmation of ovulation and documentation of tubal patency. Uterine pathologies constitute the etiologic factor in infertility in as many as 15% of couples seeking treatment. Thin endometrial lining can be troublesome in such patients. Patients with thin endometrium is a challenging aspect. In *Ayurvedic* classic *Harita* has defined *bandhyatwa* as failure to achieve a child rather than pregnancy. *Caraka* and *Vagbhata* have referred *vandhya* due to abnormality of *bijamsa*. *Ayurvedic* management with *Garbhaprad yog* in increasing the endometrial thickness showed significant results. *Bhaishajya Ratnavali* has reference of *Garbhaprad yog*. The article shows pilot study done on 5 patients in OPD of *Prasuti tantra avum stree roga* department in YMT Ayurvedic Medical College and Hospital and P.G Institute, Kharghar.

Keywords: Infertility, uterine factor, thin endometrium, *Garbhaprad yog*.

INTRODUCTION

Vandhyatva is like curse to the women as it casts the physical and mental illness health and thereby affecting the social life of the women. In *Ayurveda Garbhadhan vidhi* is explained by different *acharyas* which indirectly indicates importance of conception since that era. *Acharyas* have mentioned about the essential factors for conception in the classical text.

Acharya Susruta equated germination of a seed with achievement of conception says that if *rutu (rutu-kala)*, *bija* (ovum and sperms), *ksetra* (female reproductive system) and *ambu* (nourishing substances) assemble together, the conception will definitely occur. And the same is accepted indirectly by *Charak acharya*. *Acharya Charak* has specified special acts needed to perform for conception but with

healthy *sukra* (sperm), *artava* (ovum) and *garbhasaya* (uterus).

Infertility is a rising issue in today's era. Female factors affecting the fertility are more than the male factors. In the female factors mainly the ovulation is being looked upon. Ovulatory cycle or anovulatory cycle is checked and the treatment is given accordingly. But in the follicular study there is also an important factor to look upon i.e. Endometrial thickness (ET). Endometrium is the innermost lining of the Uterus. Endometrium can be co-related with *garbhashayya* according to the classical texts. Endometrial thickness is necessary for the embryo implantation and for a successful pregnancy. Thus, having impact on the fertility. To rule out endometrial growth, USG follicular study plays an important role in follicular growth and endometrial thickness. It has become easy with follicular study to keep a tract of the growth. Less the endometrial growth leads to less the chance of implantation leading to non conception. Medical sciences are searching drugs to increase the Endometrium. Also research works are being conducted for Endometrial thickening. So I decided to work on endometrial

thickness and *Garbhaprad* yoga. *Garbhaprad* yoga reference is given in *Bhaishajyaratnavali*, *Yonivyapad rogadohikar*. *Garbhaprad* yoga is also easily available and cost effective.

AIM: To evaluate the efficacy of *Garbhaprad* yoga in Endometrial thickening.

OBJECTIVES

Primary objective-

To study the effect of *Garbhaprad* yoga in Endometrial thickness.

Secondary objective-

1. To study complete literature available in text on Endometrium.
2. To study the effect of *Garbhaprad* yoga and its contents in management on Endometrial thickening.

STUDY DESIGN

An open, non-comparative clinical end point study to evaluate the efficacy of *Garbhaprad* yoga in endometrial thickness.

SAMPLE SIZE

5 Patients

MATERIALS AND METHODS

DRUG REVIEW

Drug review Table no 1							
SR. NO	DRUG	RASA	VEERYA	VIPAKA	GUNA	DOSHAGHNATA	KARMA
1	<i>Pipalli</i>	<i>Katu</i>	<i>Anushsheet</i>	<i>Madhura</i>	<i>Laghu Snedha Tikshna</i>	<i>Vattakapha shamak</i>	<i>Garbhashay sankochak, Vrushya</i>
2	<i>Shrungbera</i>	<i>Katu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Laghu Snedha</i>	<i>Pittakapha shamak</i>	<i>Uttejak, Vrushya</i>
3	<i>Marich</i>	<i>Katu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Laghu Tikshna</i>	<i>Vattakapha Shamak</i>	<i>Uttejak, Aartavjanan</i>
4	<i>Nagkeshar</i>	<i>Kashay Tikta</i>	<i>Ushna</i>	<i>Katu</i>	<i>Laghu Ruksha</i>	<i>Kaphapitta shamak</i>	<i>Vajikaran</i>
5	<i>Goghrita</i>	<i>Madhura</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Guru Sheeta</i>	<i>Tridosha shamak</i>	<i>Virya vrudhi Rasayana</i>

MATERIALSContents of *Garbhprad yog*

SR. NO	CONTENTS	LATIN NAME	PART USED	PROPORTION
1	<i>Pippali</i>	Piper longum Linn.	<i>Phala, Mool</i>	1 Part
2	<i>Shrungbera</i>	Zingiber officinale Rosc.	<i>Phala, Pushpa, Tvaka</i>	1 Part
3	<i>Marich</i>	Piper nigrum Linn.	<i>Phala</i>	1 Part
4	<i>Nagkeshar</i>	Mesua ferrea	<i>Punkeshar</i>	1 Part
5	<i>Goghrita</i>			As per requirement

INCLUSION CRITERIA

1. All married patients age group 18yrs to 40yrs.
2. All patients with primary and secondary infertility.
3. All patients with PCOD.
4. All patients with ovulatory and anovulatory cycle.

EXCLUSION CRITERIA

1. Patient with known case of uterine fibroid, endometrial tuberculosis.
2. Patient with IUCD in situ.
3. Patient with DUB and menorrhagia.
4. Patient with pre and post menopausal syndrome.
5. Patients with known case of systemic disorder like DM, HTN, TB, Asthma, Congenital abnormalities etc.

DOSE OF DRUG

½ Karsh = 5.75 grams approx. 6 gms
Apana kala Once a day (before food)
Rutukaal

Anupaana – Goghrita .

MODE OF ADMINISTRATION: Orally

DURATION OF STUDY: 2 menstrual cycles per patient.

STUDY CENTRE

Dr.G.D.Pol Foundation's Y.M.T Ayurvedic Hospital & P.G Institute, Kharghar, Navi Mumbai.

STATISTICAL ANALYSIS

With final result and conclusion, the data generated during the study was subjected to statistical analysis using Paired "t" Test.

INVESTIGATION

USG Follicular study.

ASSESSMENT CRITERIA

USG Follicular study was done, during which the Endometrial growth was observed and compared with before and after treatment reports.

FINAL ASSESSMENT

NO IMPROVEMENT- ET remains the same compared to previous report.

IMPROVED- ET increases than the previous report.

RESULT

The observation and result are tabulated below.

SR NO	PT NAME	ET DAY 9TH/10 TH		ET OVULATION/DAY 18 th	
		BEFORE	AFTER	BEFORE	AFTER
1	SSP	9mm	11.2mm	9mm	11.2mm
2	SVM	6.6mm	8.1mm	10.7mm	10.1mm
3	PSK	5.2mm	8mm	8.5mm	9.2mm
4	AAS	4.9mm	7mm	5.4mm	9.2mm
5	SAM	6mm	8mm	8mm	11.2mm

ET= Endometrial thickness

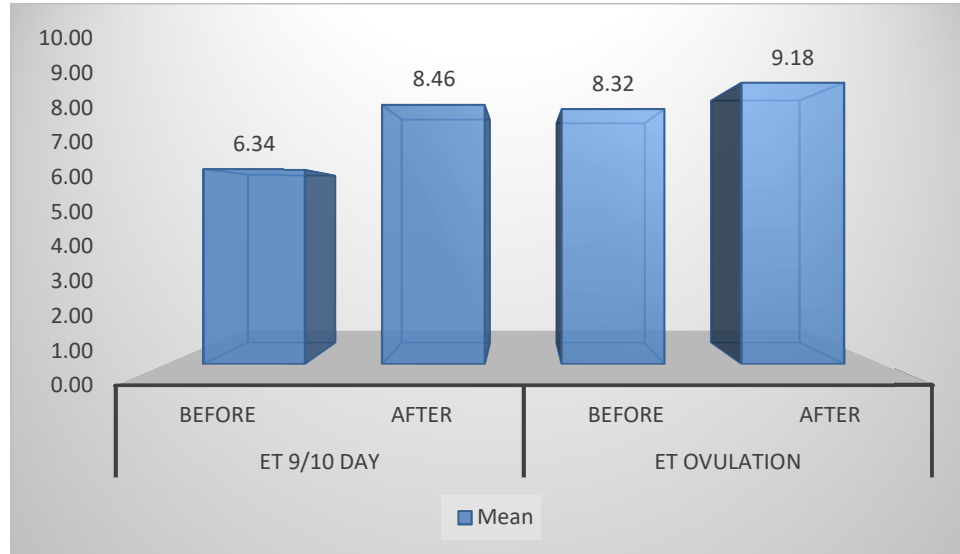
PT= Patient

DISCUSSION

To evaluate the efficacy of *Garbhprad yog* in endometrial thickness , paired t-test was applied

Applied statistics Table no 4

		Mean	N	SD	SE	t-Value	P-Value	Result
ET 9/10 Day	Before	6.34	5	1.46	0.65	3.588	0.023	Significant
	After	8.46	5	1.43	0.64			
ET Ovulation	Before	8.32	5	1.92	0.86	-1.906	0.129	Not Significant
	After	9.18	5	1.86	0.83			



Effect of *Garbhprad yog* on individual parameter

1. Endometrial thickness

There was improvement in the endometrial thickness with t value 3.588, the result was statistically significant.

2. Ovulation

There was no improvement seen on ovulation with t value -1.906, the result was statistically not significant.

The Endometrium continues to proliferate till ovulation occurs. Glands become hypertrophied and their lumina are increased. We can compare that with *raja sanchaya*. The stroma is dense and is composed of round or oval cells. The spiral arterioles are more coiled. The number of collecting veins and arteriovenous anastomosis is also increased. The Endometrium progressively increases in thickness. This is the normal physiology of Endometrium growth according to modern.

According to the classical texts *rutu kala* and *rutavateeta kala* describes the endometrial growth. *Rutukala* is *kapha pradhan* and *rutavateeta kala* is *pitta pradhan*. Thus in this phase *kapha* and *pitta* are the *doshas* resembling the endometrial growth. Also we know for regeneration and growth *kapha* is essential, as *vata* causes retardation of growth. Thus the *Ayurvedic* physiology of *kapha-prakopa* and *vatashaman* during *rutu kala* is self explanatory for the changes in Endometrium.

Garbhprad yog includes *pipalli*, *shrunghera*, *marich* and *nagkeshar choorna*.

Pipalli is *katu* in *rasa* and *vrushya* in *karma*. It is also *anusheet* in *virya* thus *guru* in *guna* which will help in proliferation.

Shrunghera is *snigdha* in *guna* and *uttejak* will help endometrial growth.

Pipalli and *Shrunghera* are *madhura vipak* thus are *guru* in *guna* which increases *kapha*.

Marich is *ushna virya* and *uttejak* and *aartavjanan*. *Pilpalli* and *marich* both are *pitta vardhak*, *vata shamak* which will help in regeneration. Thus according to the doshas, *pitta vardhan* helps endometrial growth.

Nagkeshar is *laghu* and *vajikaran*. These qualities will help in endometrial growth, leading to healthy Endometrium. This healthy Endometrium will help in implantation of the embryo.

After the pilot study of 5 patients, all showed marked improvement. Thus this pilot study reflects the true efficacy of *Garbhprad yog* when used for increasing the Endometrium. The action of *Garbhprad yog* showed improvement in such cases.

CONCLUSION

Bald endometrium is a major issue in the present era. For implantation of the embryo endometrium plays a very important role. The modern treatments have also failed in the endometrial growth. This pilot study of *Garbhprad yog* shows encouraging results in improvement of the endometrial thickness. As a result this study has good scope of clinical study on large scale to prove the efficacy of *Garbhprad yog* in endometrial thickness.

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