Research Article

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STUDY OF UTTARAVASTHI WITH DHANVANTARI TAILA IN FEMALE INFERTILITY

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Received on: 07/12/12 Revised on: 20/01/13 Accepted on: 10/02/13

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DOI: 10.7897/2277-4343.04235

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ABSTRACT

Female infertility is the most common gynecological problem which many women in the 21st century are facing. The increasing rate of infertility has become a challenging issue for the gynecologists. As the allopathic treatment dwell upon hormone supplementation, surgical procedures and Artificial Reproductive Techniques, it's the turn of Ayurveda to give solution and achieve conception by natural method to give a healthy offspring. The aim of the study was to evaluate the efficacy of uttaravasthi with dhanvantari taila in cases of female infertility. A study was conducted on 100 female infertile patients. All patients were grouped into 4 groups such as PolyCystic Ovarian Disease (30 patients), Tubal obstruction (30 patients), Anovulation (20 patients) and Menstrual abnormalities (20 patients). All the patients were given uttaravasti with Dhanvantari taila after giving sneha and sodana vasti consecutively. The study was performed from 5th day of menstrual cycle after cessation of bleeding in the sequence of sneha vasti, sodhana vasti and uttaravasti for 5 days. The treatment was repeated in the next cycle after cessation of bleeding. The course of treatment was given to all patients for a period of 3 months. Investigations were done before and after the treatment. Results were assessed according to the investigations and concluded by statistical analysis. The overall conception rate was 75%. The effect of the treatment on PolyCystic Ovarian Disease and tubal block found highly significant than Anovulation and Menstrual irregularities. In all 4 groups, the Danwantari taila uttaravasti was found statistically significant.

Keywords: Uttaravasti, Female Infertility, Danwantari taila, PolyCystic Ovarian Disease, Anovulation, Menstrual irregularities, Tubal Block

INTRODUCTION

Motherhood is the crowning act in the women's feminine role of life. The very definition stree is "Sthyayathi Garbha Yasyamithi Stree" i.e. Stree means who possess womb (Uterus) or who has capacity of conceiving a child. As per Ayurveda giving birth to a healthy offspring is dependent upon four basic factors i.e., Ritu, Kshetra, Ambu and Beeja¹. Abnormality or disturbance in the Anatomy and physiology of the above factors may result in infertility (Vandhya). Infertility is a condition defined as a failure to achieve conception within one or years of regular unprotected coitus². It may result by many causes of male and female factors. In that most frequent female causes are Tubal block, Anovulatory cycles, Polycystic Ovarian Disease and some endometrial causes i.e., menstrual disorders like Menorrhagia, Metrorrhagia, Dysfunctional Uterine Bleeding, Dysmenorrhoea etc.

Ancient linear Ayurvedic classics had revealed several measures of using "Uttaravasthi" in several cases of infertility (Vandhya). One among such measures is available in the text "Vaidya Yoga Ratnavali"³. Vata is the main factor and Apana Vata Vygunya leads to Vandhya⁴ (Infertility). Vasthi is the best one in treating vata rogas⁵. In vata vidwamsakara drugs Dhanvantari Taila was enlighten in "Astanga Hridayam", and Sarva Roga chikitsa sara also. Use of this oil cures all the diseases of vata and is said to be the best.

It has the sukshma guna which can enter even into the minute channels and clears the obstruction in the passage and corrects the most of the uterine abnormalities.

Even though in the modern field of medicine there are lots of advancements and well developed reproductive

technology, it is the responsibility of a Gynecologist to see economic condition of the patient while treating middle class and poor patients of infertility. Modern concept of treatment for infertility (Hormonal and Surgical procedures) not only damage physical health but also causes psycho neurotic upset.

For this problem Ayurveda provides the solution with minimum exertion and expenditure i.e. cost of the Ayurvedic treatment is within the reach of common man. The efficacious remedies listed in Ayurvedic literature which are very economical and are proved beyond doubt in tackling the problem successfully. The present study confined only to the uttaravasthi with Dhanvantari Taila⁶ in cases of female infertility due to Tubal obstruction, Anovulation, PolyCystic Ovarian Disease and Menstrual abnormalities.

MATERIALS AND METHODS

Aims and objectives

- To reassess the efficacy of the drug 'Dhanvantari Taila' by uttaravasti based on the principles of Ayurvedic treatment in vandhya.
- To compare the efficacy of the drug Danwantari taila in PolyCystic Ovarian Disease, Tubal block, Anovulation and Menstrual disorders.

Inclusion Criteria

- The patients who are infertile with the cause of tubal block, PolyCystic Ovarian Disease, anovulation and cases of menstrual disorders.
- Patients should be within the age group of 20 – 35 years.

Exclusion Criteria

Patients suffering from fibroid uterus, adenomyosis, and malformations of uterus, Human Immuno Deficiency Viral infection or any Sexually Transmitted Diseases are excluded from the study.

Place of study

100 cases were selected after Hysterosalpingogram (HSG), ultrasonography (USG), Follicular study, hormonal analysis (Follicle Stimulating Hormone and Leutinizing Hormone), Thyroid profile, routine Haemoglobin level, Complete Blood examination, Urine analysis, Veneral Disease Research Laboratory test, HbsAg, Human Immuno Deficiency Virus I and II, Random Blood Sugar etc., at outpatient and In Patients of Prasuti Stree Roga Department, Dr. A.L. Govt., Ayurvedic Hospital, Vijayawada, India, after duly taking consent from the patient. The study was conducted after taking Ethical clearance. The drug Dhanwantari taila was prepared by self as per taila paka vidhi. The study was approved by institutional Ethics Committee of National Ayurveda Reasearch Institute, Vijayawada, India.

Drugs and Dose

All patients were treated priorly with sneha vasthi (Anuvasana vasthi), next day with sodhana vasthi (Asthapana vasthi) on day 5th and 6th simultaneously after cessation of bleeding. After snehana and sodhana of their body, they are subjected to uttarvasthi with dhanvantari Taila 2 – 5 ml for 5 days i.e, till 12th day from last menstrual period.

Drugs for Anuvasana or taila vasti

Phalagritam, Ashokagritam and Dhanvantari Talia, total quantity of 60 ml in Ardrapani given on 5th day of menstrual cycle after stoppage of bleeding.

Drugs for Niruha vasti

Niruha vasti is considered as nectar for infertile woman⁷. Dasamoola, quatha, Ashoka twak, Laxmanapanji, 350 ml kashaya is prepared. To this kashaya Aswagandha, Lasuna kalka, Honey, Hingu, Saindhava Lavana, Sounf churna and Dhanvantari Taila were added. A total dose of 500 ml niruha vasti was given.

Drugs for uttaravasti

Dhanvantari Taila was prepared as per text Vaidya Yoga Ratnavali, section 13, taila prakarana. The formulation was also referred from sarvaroga chikitsa sara and Astanga Hridyam. Danwantari taila consists of some important drugs such as bala, amalaki, aswagandha, agaru, etc. (Figure 2). All the drugs were collected and formulation was prepared by snehapaka method. The taila after preparation was stored in a clean autoclaved container. The physico-chemical properties of oil are illustrated in the figure 1.

Figure 1

Danwantari Taila Description

- Odour: Pleasant
- Touch: Oily
- Loss on drying: 0.25%
- Specific gravity: 0.92
- Iodine value: 39.68
- Acid value: 3.6
- Saponification value: 189.8
- Total fat%: 94.72%

Uttaravasti

The materials used during the procedure uttarvasti are displayed in Figure 4. The patient was placed in lithotomic position and then the Dhanvantari taila (Figure 3) was instilled into the uterine cavity through vaginal and cervical canal. The drug was instilled into the uterine cavity with intra uterine insemination canula after cleaning external and internal genitalia with triphala quatha. Duration of treatment is three months.

Dhanwantari Tailam Ingredients

Figure 2

Dhanvantari Taila and Materials used for uttaravasti

Figure 3

Figure 4

Figure 5

Table 1

Gradation of parameters with specific scores for the assessment of results			
1	Amount of bleeding	Scanty	1
		Regular	0
		Heavy	2
2	Regulation of menstrual cycle	Regular	0
		Irregular	1
3	Conception	Achieved	0
		Not achieved	1

Table 2

Objective parameters			
1	Ovulation	Present	0
		Absent	1
2	Endometrial thickness	5 mm- 7mm	1
		8 mm- 10mm	0
3	Weight	Normal	0
		Overweight	1
		Obese	2
4	Follicular study	12-18mm	0
		<12mm - >18mm	2
5	Tubal patency	Partially block	1
		Both tubes block	2
		Both patent	0

Assessment of Results

Detailed history of the patient including Hemoglobin, Total Count, Differential Count, Erythrocyte Sedimentation Rate, complete Urine examination and culture, ultrasonography and Hysterosalpingogram (HSG), for Tubal patency⁸, Follicular study before and after the treatment and after 3 months of the treatment were done. Gradations were given according to the tables 1 and 2.

Based on the individual score of each finding before and after treatment, the response of the treatment can be assessed. Overall effect of the treatment in each patient can be assessed by the below formula;

i.e. overall percentage of relief = (Total score of all findings before treatment- Total score of all findings after

treatment) × 100 / Total score of all findings before treatment.

Patients with relief about 75% or more is considered as good response, 50% to <75% is considered as moderate response, 25% to <50% as poor response. Based on the individual score before and after treatment statistical analysis was done.

OBSERVATIONS AND RESULTS

In present study patients suffering from infertility were divided in to 4 groups according to causative factors. In group I 30 patients of PolyCystic Ovarian Disease, group II 30 patients of tubal block, group III 20 patients of menstrual disorders and group IV 20 patients of anovulatory cycles. All groups of patients were received treatment of Dhanvantari tail uttaravasti.

Table 3: Distribution of subjects according to the major causative factors of the infertility

Causative factor	No	Percentage
PolyCystic Ovarian Disease	30	30%
Tubal block	30	30%
Menstrual irregularities	20	20%
Anovulatory cycles	20	20%

Table 4: Response to the treatment with Dhanvantari tail uttaravasti

Bleeding				
SN		Not responded	Responded	Total
1	Polycystic Ovarian Disease	4	15	19
2	Tubal Block	0	12	12
3	Menstrual Irregularities	3	17	20
4	Anovulatory Cycles	0	1	1
		7	45	52
	Chi - square	27.269	df	1
	P value	1.4e-7		

Calculated Chi-square value was at 1 df is 7.88. The calculated value is 27.269 and P value is very low, calculate value is greater than critical value so statistically significant.

Table 5

Menstrual irregularities				
SN		Not responded	Responded	Total
1	Polycystic Ovarian Disease	7	14	21
2	Tubal Block	0	4	4
3	Menstrual Irregularities	4	16	20
4	Anovulatory Cycles	0	6	6
		11	40	51
	Chi - square	16.49	df	1
	P value	0.00004891		

Calculated Chi-square value was at 1 df is 7.88. The calculated value is 16.49 and P value is very low, calculate value is greater than critical value so statistically significant.

Table 6

Follicular study				
SN		Not responded	Responded	Total
1	Polycystic Ovarian Disease	5	23	28
2	Tubal Block	0	0	0
3	Menstrual Irregularities	0	0	0
4	Anovulatory Cycles	2	18	20
		7	41	48
	Chi - square	24.083	df	1
	P value	09.2e-7		

Calculated Chi-square value was at 1 df is 7.88. The calculated value is 24.083 and P value is very low, calculate value is greater than critical value so statistically significant.

Table 7

Tubal patency				
SN		Not responded	Responded	Total
1	Polycystic Ovarian Disease	0	0	0
2	Tubal Block	1	29	30
3	Menstrual Irregularities	0	0	0
4	Anovulatory Cycles	0	2	2
		1	31	32
	Chi - square	28.125	df	1
	P value	1.1e-7		

Calculated Chi-square value was at 1 df is 7.88. The calculated value is 28.125 and P value is very low, calculate value is greater than critical value so statistically significant.

Table 8

Conception				
SN		Not responded	Responded	Total
1	PCOD	5	25	30
2	Tubal Block	6	24	30
3	Menstrual Irregularities	3	17	20
4	Anovulatory Cycles	2	18	20
		16	84	100
	Chi - square	46.24	df	1
	P value	0		

Calculated Chi-square value is at 1 df is 7.88. The calculated value is 46.24 and P value is very low, calculate value is greater than critical value so statistically significant.

DISCUSSION

A total of 112 cases were recruited of which 100 cases completed (30 in group I, 30 in group II, 20 in group III, 20 in group IV) study and 5 patients in group I, 2 patients in group II, 4 patients in group III and only one Patient in group IV left the study during different periods of trial and were considered as Left Against Medical Advice, hence 100 completed cases i.e. in group I-30, group II-30, group III-20, group IV-20 were only considered for the assessment of results.

The present clinical trial was aimed to find out effectiveness of Dhanvantari tail uttaravasti in female

infertility. On analysis of results the effect of the treatment in all groups that is in infertility causing major four factors (Polycystic Ovarian Disease group I, Tubal Block group II, Menstrual disorders group III, anovulatory group IV) results were found to be significant by Ultrasonography, by pregnancy test and by other parameters. Comparison of each factor with another is not significant. Even though reproductive age is said to be 16-45 but after 35 years chance of conception was low hence for this study we selected age group 20-27 and 28-35 years, but in all four groups of infertility, treatment with Dhanvantari taila uttaravasti is not significant.

According to occupations Housewives were 33.3% (I), 13.3% (II), 10% (III), 20% (IV), Employees were 53.3% (I), 66.6% (II), 80% (III), 70% (IV), patients of labor work were 10% (I), 13.3% (II), 10% (III), 10% (IV) and patients of students category were 33% (I), 6.6% (II), nil in group III and group IV. The major affected occupation groups were employees. Stress and strain is major causative factor in Polycystic Ovarian Disease, Menstrual disorders and anovulatory cycles and effect of Dhanvantari taila uttaravasti was very significant.

In group I employee 14 out of 30 patients conceived, in group II 16, group III 15, group IV 14 more number of women employers are registered and response to the treatment also high.

Table 5 of conception shows calculated Chi Square value is at 1 df is 7.88, the calculated value is 46.24 and P value is very low, calculate value is greater than critical value so statistically significant.

Vasti is mainly indicated in vata dominant disorders and also avarodha janya and dhatukshaya janya can be managed by vasti. Charakacharya explained the action of vasti by giving example of a tree, as a tree is irrigated at its root level, attains branches with beautiful tender leaves and flowers in the due course. Hence uttaravasti is beneficial with tridosha hara properties of Dhanvantari taila in Polycystic Ovarian Disease, tubal block, menstrual disorders and anovulatory cycles.

In Ayurvedic classics like vaidya yoga ratnavali, sarvaroga chikitsa ratnam and in sahasrayogam Dhanvantari taila is indicated for all yonivyapats and prajastapana. The main ingredient Bala moola (*Sida acuta*)⁹ is pittavata hara, balya, grahi and has prajastapana properties. Dasamoolas are vata slesma hara, agnimantha, syonaka, gambhari, gokshuru, kantakari, sariva, mashaparni, saindava lavana, manjista, kusta, satapuspa, tagara all these have deepana, pachana and has tikta, kashaya rasas. Tikta ras is best in amapachana and kashaya rasa is pakva pitta soshanam, so it acts as best pittahara oushadam, it is very much useful in menstrual disorders, tubal block, Polycystic Ovarian Disease and anovulatory cycles. Given dosage form is a taila preparation, taila used is tila taila which is tridosha hara and is grahi and balya. Taila with its sneha and sukshma gunas is easily absorbable through the mucus membrane, glands and vessels. By its steroidal action of drugs¹⁰ in the danwantari taila it gives nutrition and may potentiate the endometrial receptors. It is more effective and easily absorbable hence it is effective in all major causes of infertility of different dosha vitiation.

CONCLUSION

By this study it was proved that uttaravasti with Dhanvantari taila in all major factors i.e Polycystic Ovarian Disease, tubal block, menstrual disorders and an-ovulation cycles, has positive effect. The an-ovulation is considered as the major ovarian factor for infertility¹¹ which can be treated by danwantari taila uttaravasti very easily. The overall conception rate was 75%. The effect of the treatment on Polycystic Ovarian Disease and tubal block found highly significant. The use of snehana vasti and niruha vasti was also beneficial in all kinds of ailments implicating different types of doshas, dusyas and adhistanas. Finally it is concluded that Dhanvantari taila uttaravasti is boon for infertility patients as an effective, simple and economical treatment. Dhanvantari taila uttaravasti should be tried at multiple directions and further study should be done to know the efficacy.

ACKNOWLEDGEMENT

The authors are grateful to The Principal, Dr.BRKR GAC, Hyderabad, India and Principal of NRS GAC, Vijayawada, India. The authors are highly thankful to Dr.NTRUHS Vijayawada, AP for providing an opportunity to complete the study under PhD programmer, Shri G.Ganga raju, Chairman, Laila group and Mr.Rama Raju, Managing Director, Laila implex for their help and guidance in the study.

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Cite this article as:

Kamidi Vijaya Kumari, M.L.Naidu. Study of uttaravasthi with Dhanvantari taila in female infertility. Int. J. Res. Ayurveda Pharm. 2013; 4(2):257-261