

Effect of Swarnaksheeri Swarasa in Different Case of Infertility Due to Ovarian Factor: A Detailed Study

Dr. Saraswati Chinmalli¹, Dr. Shobha B Nadagouda², Dr. Laxmi Metri³, Dr. Snehal Miraje⁴

¹PG Scholar, Department of Prasuti Tantra and Stree Roga,

²M.S (Ayu) (PhD) Professor and HOD, Department of PG Studies in Prasuti Tantra and Stree Roga,

³M.S (Ayu) Associate Professor, Department of Prasuti Tantra and Stree Roga,

⁴PG Scholar, Department of Prasuti Tantra and Streeroga,

^{1, 2, 3, 4}SVM Ayurvedic Medical College, Ilkal, Karnataka, India

ABSTRACT

To be a mother is an impeccable milestone in a women's life. Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse. Infertility affects millions of people and has an impact on their families and communities. Estimates suggest that approximately one in every six people of reproductive age worldwide experience infertility in their lifetime. Although both women and men can experience infertility, women in a relationship with a man are often perceived to suffer from infertility, regardless of whether they are infertile or not. Infertility has significant negative social impacts on the lives of infertile couples and particularly women, who frequently experience violence, divorce, social stigma, emotional stress, depression, anxiety and low self-esteem. In the female reproductive system, infertility may be caused by a range of abnormalities of the ovaries, uterus, fallopian tubes, and the endocrine system. In this infertility due to ovarian causes with special reference to PCOS are taken for the study. The cause of infertility may be difficult to determine but may include inadequate levels of certain hormones and trouble with ovulation in women. Management of infertility through modern is a complex phenomenon and expensive ranges from simple ovulation induction to IVF Low-income, Less Educated Women Least Likely to Access Infertility Care. *Vandhyatva* and its management has been explained in ayurveda which is cost effective. A Folklore practice in which Swarnaksheeri (*Argemone mexicana*) a weed is given in infertility cases has been taken for the clinical study and which has shown significantly results in case of infertility due to PCOS.

How to cite this paper: Dr. Saraswati Chinmalli | Dr. Shobha B Nadagouda | Dr. Laxmi Metri | Dr. Snehal Miraje "Effect of Swarnaksheeri Swarasa in Different Case of Infertility Due to Ovarian Factor: A Detailed Study" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-8 | Issue-5, October 2024, pp.546-549, URL: www.ijtsrd.com/papers/ijtsrd69414.pdf



Copyright © 2024 by author (s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



KEYWORDS: Infertility, PCOS, Vandhyatva, Swarnaksheeri

INTRODUCTION

Infertility is defined as a failure to conceive within one or more years of regular unprotected coitus. Polycystic ovary syndrome (PCOS) is one of the most common endocrinological disorders in women of Reproductive age, affecting 5% to 10% of these women.¹

Anovulatory infertility is common consequence of PCOS, and the incidence of PCOS in women with anovulatory infertility is higher at 70 % to 80%. Causes of infertility includes many factors one such is ovarian factors this includes 1. Anovulation or oligo ovulation 2. Decreased ovarian reserve 3. Luteal

phase defect (LPD) 4. Luteinized unruptured follicle (LUF).²

According to Ayurveda *Vandhyatva*: Acharya Charaka has described *Vandhyatva* caused by the *pradushta Garbhashya bija bhaga of shonita* (Ca.Sha 4/30) and one of the complications of untreated *yoni vyapats* (ca chi 30/31)⁴. Harita while explaining the types of *vandhyatva* has given *dhatu kshaya* due to *vyadhi* or *panchakarma vaishamya* or *ahara janya as nidana* to *vandhyatva*. *Samanya nidana* of *vandhyatva* includes *ahara dosha*, *vihara dosha*, *akala yoga*, *bala samkshaya*, *atma dosha*, *daiva*

prakopa and durma nasya (Ca.Sha 2:7).Artava-vaha sroto vedha, Ashta artava dushti, yoni vyapaths, asirk dosha, sukra dosha, vata vyadhis, jataharini vikriti, yoni pradasha, manasika abhitapa Garbha-kosha bhaga and bhaga samkocha can also lead to *vandhyatva*.³

Acharya *Sushruta* has explained 4 important factors for to conceive i.e; *rtu, kshetra, ambu, bija*.⁵ *Artava shodhana* especially ovarian pathologies like PCOS and which causing infertility. *Kashyapa* has explained *virechana* is the ideal treatment in anovulation.⁶

A folkore medicine *Swarnaksheeri (Argemone Mexicana)* commonly known as prickly poppy is widely seen grow along roadside, cultivated lands, river banks and waste lands as a weed. This drug has properties like *tikta katu rasa, laghu ruksha guna, sheeta virya, katu vipaka karma – kaphapitta hara, vishagna, Bhedana and rechana*.⁷ The leaf of which has antiandrogenic, antioxidative and

Anti-steroidogenic properties which can in be used in condition like PCOS where there is hyperandrogenic condition.⁸ The study on Wister rat showed that the fresh root extract of *Argemone Mexicana* increased the endometrial thickness which indeed required for proper implantation of embryo as well as the higher pregnancy rates are significantly linked with the increased thickness of endometrium. Further, studies also have proved a greater chance of pregnancy once the endometrium reaches a threshold thickness is taken for the clinical study.⁹

MATERIALS AND METHOD –

Source of data – 5 patients Of PCOS visiting to OPD of Prasuti Tantra and Stree roga Department of R. P. Karadi Ayurvedic Hospital, Ilkal, Bagalkot district are selected for study.

Study design – a randomized clinical study

Sample size – 5 patients randomly selected.

Inclusive criteria

1. Patient aged b/w 18 to 35 years.
2. Patient diagnosed with PCOS by USG
3. Married women with PCOS and infertility

Exclusive criteria

1. Primary Amenorrhea
2. Malignancy and structural abnormalities of Ovary, Uterus and Cervix.
3. Patients with diabetes mellitus, hypertension, and cardiovascular disease
4. Patient already on Hormonal therapy
5. Genetic syndrome like Turners syndrome.

STUDY DESIGN

Group of 5 patients

Drug – *Swarnaksheeri swarasa* from 5th day of menstrual cycle

Dose – 30ml for 5 days empty stomach in the morning with equal quantity of milk

Swarnaksheeri Swarasa 30 ml with equal quantity of milk early in the morning empty stomach and *Varunadi Kashaya* 20 ml with equal quantity of warm water BD after food.

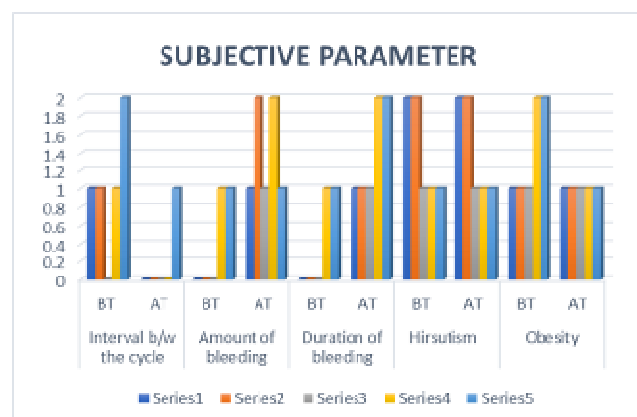
Assessment criteria -

Ovulation study on 10, 12, 14 and 16th day – ovarian changes (follicular study), volume and endometrial thickness.

OBSERVATIONS AND RESULTS

Observations in subjective parameters

1. **Interval between the cycle** the standard mean before treatment was 1.0 and after treatment it was reduced to 0.2. Interval between the cycle was irregular was regularized normal menstrual cycle significantly effective.
2. **Amount of bleeding** the standard mean before treatment 0.4 and after treatment was increased to 1.4. Amount of bleeding increased from spotting so significantly effective.
3. **Duration of bleeding** the standard mean increased there was a significant improvement in duration of bleeding. The drug acts on endometrial thickness.
4. **Hirsutism** nothing much changes in hirsutism were observed.
5. **Obesity** as the drug has *karshini* that which reduces weight. it showed improvement in few patients if for significant results along with drug if *sthoulayahara ahara vihara* are practised it might have much effect.



DISCUSSION

Benefits with ayurvedic approach and treating with root cause

Effect of swarnaksheeri swarasa and further research areas on it and in 3 different case explanation

Mode of action of drug -A weed can also be a good medicine if one is aware of its action. Also, it is very essential to know its qualities and action through unremitting research and development studies. In this respect, the researchers have to come forward along with the natural healers for looking upon wide ranging prospects and potential of traditional medicines for various purpose.

Swarnaksheeri has antioxidant, Anti-diabetic and anti-inflammatory properties. Garbhashaya Shothahara and garbhashaya Shodhaka are the two principles which may be the possible actions helped in ovulation. The drug stimulates Hypothalamus leading to stimulation of gonadotropin Releasing Hormone (GnRH) and neurons regularizing GnRH pulsatile secretion, leading to ovulation. Phytochemical analysis has shown presence of alkaloids like Berberine, Protopine and Cryptopine.¹¹

Berberine is also shown to be effective against insulin resistance and obesity, particularly against visceral adipose tissue.

Berberine induced a redistribution of adipose tissue, improved insulin sensitivity, quite like metformin. Moreover, berberine improved insulin resistance in theca cells with an improvement of the ovulation rate per cycle, so berberine is also effective on fertility and live birth rates.¹²

Sapraja vandhya not achieving conception even after successful pregnancy.

Luteal phase insufficiency is one of the reasons for implantation failure and has been responsible for miscarriages and unsuccessful assisted reproduction. Luteal phase defect is seen in women with polycystic ovaries, thyroid and prolactin disorder. As in case 3 and 4

Luteal phase is the period between ovulation and either establishment of pregnancy or onset of menstrual cycle 2 weeks later. Luteal phase insufficiency is due to inadequate production of progesterone. Progesterone is essential for secretory transformation of the endometrium that permits implantation as well as maintenance of early pregnancy. Luteal phase defect is one of the reasons for implantation failure, which has been responsible for many cases of miscarriages and unsuccessful assisted reproduction.

PCOS women showed extremely low progesterone production in early pregnancy which might result in degenerative changes in early fetal growth.

PCOS women are thought to have the higher possibility in early pregnancy loss than non-PCOS patients. A study done to clarify the relation between corpus luteum function and early pregnancy loss in PCOS women showed no significant difference in progesterone and estrogen concentration in the mid secretory phase. The progesterone production in 5-week pregnancy, on the other hand, demonstrated a remarkable change; 27.5 ± 10.8 ng/ml (Mean \pm SD) in PCOS group and 32.4 ± 14.3 ng/ml in control respectively ($P < 0.05$). In addition, PCOS women with early pregnancy loss demonstrated lower progesterone production at 5-week gestational stage than those without miscarriage. Serum testosterone level did not affect corpus luteum function in both mid secretory and early pregnancy stage. Thus, for the PCOS patients with episodes of early pregnancy loss, progesterone supplementation, if low at 5 weeks gestation, might restore the fetal growth and then avoid recurrent miscarriage

CONCLUSION

Swarnaksheeri being a weed can be given as first line of treatment before going into modern drugs for ovulation induction or IVF treatments. Swarnaksheeri is Garbhashaya Shodana and Karshini which can have given a better outcome prior to even IVF. Swarnaksheeri increases the endometrial thickness so improves the management of infertility.

REFERENCES

- [1] D C Dutta Textbook of GYNECOLOGY by Hiralal konar 6th edition November 2013 reprint Jaypee publication.
- [2] Infertility management made easy by Sushma Deshmukha Foreword Gautam N Allahbadia published by Jaypee Brother's medical publishers First edition 2007 chapter – Polycystic Ovarian Syndrome pg no 172
- [3] Caraka Samhita by R.K.SHARMA, BHAGWAN DASH Couwkhamba Sanskrit series office Varanasi. Reprint 2016 charaka shareera 2 chapter.
- [4] Caraka Samhita by R.K.SHARMA, BHAGWAN DASH Couwkhamba Sanskrit series office Varanasi. Reprint 2016 Charka chikitsa 30th chapter
- [5] Sushruta Samhita of Maharishi Sushruta edited with ayurveda tattva sandipika by Kaviraja Dr Ambika dutta shastri forward by Dr mehta part 1 reprint edition 2021 shareera stana
- [6] Kashyapa Samhita of vriddha jivaka revised by Vatsya with Sanskrit introduction by Pandit

Hemaraja Sharma, Chaukhamba Sanskrit series 2002

- [7] Chuneekar KC (1998) The Bhavprakash nighantu of bhavamishra by KC cheneekar, chaukamba orentalia, Varanasi reprint edition 2018.
- [8] www.jaims.in A Pilot study on the Management of Nashtartava w.s.r to Anovulation with swarnaksheeri. DrSushma associate professor, Department of prasuti Tantra and stree roga, I.A.M.S, Lucknow, Uttar Pradesh, India. Journal of Ayurveda and Integrated Medical Sciences submission date 9/9/2021 accepted date 12/10/2021 ISSN 2456-3110 Sept-Oct 2021 edition.
- [9] Phytochemical Characterisation of Argemone mexicana Leaf Extracts: An Evidence for its Antiandrogenic and Antioxidant Activities Jayapal Sharath, Rafi Ahmed Shahin Taj, Mahadevaiah Bhagya* Department of Studies in Zoology, University of Mysore, Mysuru, Karnataka, INDIA.
- [10] The effect of argemone mexicana root on female reproductive system in wistar rats international journal of Research and Development in Pharmacy and Life sciences www.ijrdpl.com sept 2016 vol 5
- [11] Natural Phytochemicals as SIRT Activators-Focus on Potential Biochemical Mechanisms by Michał Wiciński *Nutrients* 2023, 15(16)
- [12] <https://doi.org/10.3390/nu15163578>
Submission received: 14 July 2023 / Revised: 4 August 2023 / Accepted: 9 August 2023 / Published: 14 August 2023 (This article belongs to the Special Issue The Principal Applications of Phytochemicals in Inflammation, Oxidative Stress, and Immune Responses)

