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# A Clinical Study to Analyse the Effect of Chitrakagrathikadhi Kashaya and Nashtapushpanthaka Rasa in PCOS

Author: Sharon Sebastian<sup>1</sup>

Co Authors: Suchetha Kumari<sup>2</sup> and Arpana Jain<sup>3</sup>

<sup>1-3</sup>Department of Prasuti Tantra and Stree Roga, SDM College of Ayurveda, Udipi, Karnataka, India

## ABSTRACT

Polycystic Ovarian Syndrome (PCOS) is a common endocrinopathy typified by oligoovulation or anovulation, signs of excess androgen and multiple small ovarian cysts. There is no direct reference for the condition in Ayurvedic classics but can be correlated to *artavavyapaths* like *nashtartava*, *artava kshaya* and *yonivyapaths* like *vandyayonivyapath* and Pushpaghni Jathaharini explained by Achaya Kashyapa. It remains as a challenge to select a treatment which is safe, non- hormonal and effective against the associated symptoms. This study is designed with an objective to analyse the effect of Chitrakagrathikadhi kashaya<sup>3</sup> and Nashtapushpanthaka rasa<sup>4</sup> in PCOS. After the study duration, it was found that the patients were having significant relief in their disturbed menstrual parameters. A considerable reduction in the volume of the ovaries were also seen after the treatment. One patient got conceived during the follow up period. The intervention is beneficial in treating PCOS. The study can be conducted in a large sample size for a longer duration to see the accurate efficacy of the drug.

**Key Words** PCOS, *Nashtartava*, *Artava kshaya*, *Vandyayonivyapath*, *Pushpaghni Jathaharini*

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## INTRODUCTION

The Polycystic ovarian syndrome, originally called as the Stein-Leventhal syndrome, was popularized by the two Americans whose names have been attached to the condition for 70 years<sup>1</sup>. It is a condition with a wide range of reproductive and metabolic features that affects 4-18% of reproductive aged women. PCOS typically

involves hormonal imbalances, insulin resistance and metabolic abnormalities which significantly increase the risk of infertility, type 2 diabetes, and affect the quality of life<sup>2</sup>.

The aetiology of PCOS/PCO multifactorial. These facts prove that the disease called PCOS is not just a gynaecological threat. Together with the reproductive activities, the metabolic activities are



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impaired and ends in complications. In spite of boundless experiments, the treatment of PCOS is still challenging and none of the medical systems possess a permanent solution for the condition.

This particular feminine disorder is not described word to word in ayurveda. PCOS associated symptoms mimic the features of *artavavyapaths* like *nashtartava*<sup>3</sup>, *artava kshaya*<sup>4</sup> and *yonivyapaths* like *vandyayonivyapath*<sup>5</sup>. It can be correlated with *Pushpagni jaathaharini*<sup>6</sup> from Kashyapa Samhitha also. According to Ayurveda, disease should be examined by fivefold examination system (*nidana panchaka*)<sup>7</sup>. If we try to make out a satisfying pathophysiology of PCOS in Ayurvedic view, the treatment can be made possible accordingly. In this condition, we assume that the *kapha avarana* of *vata* takes place along with *medodushti* and it adversely vitiates the *artava* of women consequently making her infertile. The drugs selecting for the treatment should be capable of doing *vata-kapha hara karma*. After the pathophysiology is made understood in Ayurveda, the treatment according to those can be selected and practiced.

*Chitrakagranthikadhi kashaya*<sup>8</sup> has ingredients which possess *katu rasa*, *ushna veerya*, *rajorodhahara*, *garbhashaya sankochaka*, *shophahara*, *gulmahara*, *medorogahara* properties. It is explained in *gulma chikitsa adhyaya* of Ashtanga Hrudaya. *Nashtapushpanthaka Rasa*<sup>9</sup> *yoga* having *phalasaruthi* “*nashtapushpe nashtashukre yonishoole cha shasyathe*” is mentioned in Bhaishajya Ratnavali Yoni Vyapat chikitsa

adhyaya. Hence this interventional combination was selected for the study.

## AIMS AND OBJECTIVES

To analyse the effect of Chitrakagranthikadhi kashaya and Nashtapushpanthaka rasa in PCOS

## MATERIALS AND METHODS

- This is an open label clinical study with pre-test and post-test design where 20 patients diagnosed with PCOS are selected based on the inclusion criteria
- Minimum of 20 patients diagnosed with PCOS
- A special proforma is prepared with all the points of history taking, personal history, USG and patients are analyzed and selected accordingly
- Chitrakagranthikadhi Kashaya - 48 ml (2 pala) twice daily in empty stomach
- Nashtapushpanthaka Rasa – 250 mg twice daily with madhu
- Three follow ups, once in every month.
- Six months including the treatment and follow up.

## RESULTS

**Menstruation:** As mentioned in Table 1, The mean value before treatment is 2 and after last follow up is 1.31 with P value 0.000 which implies that the treatment is effective in correcting menstrual irregularities.

**Size of the ovaries:** As mentioned in Table 2, Mean value of Right ovarian size before treatment is 12.31 and after treatment is 10.50 with P value



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0.000. The mean value of left ovary before treatment is 13.67 and after treatment is 10.91 with

P value 0.000. This signifies that the treatment is effective in reducing the ovarian volume.

**Table 1** Data and test of significance related to effectiveness of treatment in menstruation

Mean	BT	BT-1 <sup>ST</sup> month	BT - 2 <sup>nd</sup> month	BT-AT	BT-FU1	BT-FU2	BT-FU3
	2.00	1.40	1.10	1.15	1.15	1.21	1.31
<b>P value</b>	-	0.001	0.000	0.000	0.000	0.000	0.000

**Table 2** Data and test of significance related to effectiveness of treatment in size of ovaries

	Right ovary		Left ovary	
	Mean	P Value	Mean	P Value
<b>BT</b>	12.31	0.000	13.67	0.000
<b>AT</b>	10.50		10.91	

## DISCUSSION

PCOS is a disease where multiple systems in the body are unfavorably affected. The *asatmya ahara* and *vihara*, along with relevant family history constitute to the incidence of the condition. *Aharaja* and *viharaja nidanas* leading to the formation of *ama* is the main underlying factor for the condition. *Ama dosha*, along with *vata-kapha vigunatha* makes the treatment more challenging and difficult one.

The contents of *Chitrakagranthikadhi kashaya* are mainly *katu rasa*, *ushna veerya*, *laghu*, *ruksha*, *tikshna*, *sookshma guna*, *katu vipaka* and possess *kapha-vata hara* properties. This exerts effects like *deepana*, *ama pachana*, *lekhana*, *srotoshodhana*, etc. Due to these actions, *artavavaha sroto sanga* has been rectified and at the same time, the correction of *agni dushti* takes place. As the *artavavaha srotas* become free from *avarana* of vitiated *kapha*, vitiated *vata* (*apana vata*) comes to normal state causing regular *artavapravrutti* and normal *beeja nirmana*. With the correction of *jataragni*, *dhatwagni* is appraised and the *utharothara dhatuparinama* is well

balanced. All these properties act together to defy the disease PCOS.

*Nashtapushpanthaka rasa* is indicated in *nashtapushpa*, *nashtashukra*, *yonishoola*, *yonidaha* and *yoni kleda*. The *artava janana*, *rajorodhahara* properties of the ingredient drugs aids the normal flow of the menstrual blood. The emmenagogue property of certain drugs stimulate menstruation. The formulation possesses the drugs with *rasayana*, *balya* properties. *Rasayana* is *dehendriya bala pradam*. This brings about *rasadhi dhatu poshana*. *Deepana-pachana gunas* benefit in the normalisation of *dhatwagni* as well. *Uttarothara dhatu poshana* is benefitted from this and helps in the normal production and secretion of the *artava*. The drugs with *medya* property facilitates the stimulation of the HPO axis and the feedback loops are made to function normally. The adaptogenic activity of the drugs help regulate the stress response mediators like cortisol, etc. which is found to be raised in PCOS. *Shothahara* property helps in alleviating the *kapha dosha* and thus the bulkiness of the ovaries due to PCOS condition is reduced as *kapha dosha* is responsible



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for any kind of growth. The hepatoprotective activity may be beneficial in the production of SHBG hormone thus testosterone excess might be reduced. The role of liver in the digestive function is well known. The digestion, if hindered, give rise to the formation of *ama dosha*. This is a major contribution to the formation of PCOS condition. When the *yakrituttejaka* property, along with *deepana pachana karma* acts on the body, the formed *ama* is cleared and thus the purification of the body is done appreciably.

## CONCLUSION

PCOS is a multisystem endocrinopathy. The symptoms can be considered with that of *Pushpaghni jathaharini*, *nashtartava*, *artavakshaya*, and *vandya yoni vyapath*. Defective *ahara-vihara* leading to *ama* formation due to impaired *agni* is the *nidana*. The combination of *Chitrakagranthikadhi kashaya* and *Nashtapushpanthaka rasa* was found highly effective clearing the menstrual irregularities of the patients, due to the *ushna*, *tikshna* and *vata-kapha hara* properties of the ingredients. The modification in the diet and adequate exercise was helpful in boosting the efficacy of the intervention.



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