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# EFFECT OF SHATPUSHPA KALPA IN STREE BANDHYATVA W.S.R. TO ANOVULATORY FACTOR - A REVIEW STUDY

Neeta Shelani<sup>1</sup>, Prayesh Tomar<sup>2</sup>

<sup>1</sup>PG Scholar, <sup>2</sup>Professor,

Dept., of Prasuti Tantra & Striroga. Rishikul Campus, Haridwar, UAU, Dehradun, Uttarkhand, India

Email: neetashelani93@gmail.com

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### **ABSTRACT**

**Purpose**: In present era, because of change in life style, food habit, workload, women face lots of stress and strain. Here is increasing rate of infertility in present era and it is a major problem among the married couples nowadays due to increasing number of aetiological factors in comparison to previous time. Rough estimated suggest that nearly 30 million couples in India suffer from infertility, Amongst the causes of female infertility, ovarian dysfunction contribute about 40% which include anovulation. In *Ayurveda*, many herbs are described which are helpful to procure fertility. *Shatpushpa* is the single drug of choice which is helpful in female in female reproductive disorder. Indication of *Shatpushpa* described by *Kashyapa Samhita* include amenorrhoea, Oligomenorrhea, menopausal syndrome etc. there is need of time to evaluate effect of Shatpushpa in the form of Shatpushpa kalpa- the unique method of administration of *Shatpushpa* given by *Acharya kashyapa* 

**Keywords:** Infertility, Anovulation, Shatpushpa, KashyapaSamhita, Shatpushpa Kalpa.

### INTRODUCTION

Infertility has been defined as failure to conceive after frequents as the inability to conceive naturally after one year of regular unprotected intercourse, infertility can be primary, in couple who have never conceived and this group exclude women who have conceived but not carried the pregnancy full term. Secondary infertility is related to couple who have previously conceived and have difficulty in conceiving again.

Among the causes of infertility, ovarian factor overall contributes 20% and 15% in primary and secondary infertility respectively where as in female, it contrib-

utes 40% ovarian dysfunction encompasses anovulation or oligo ovulation, corpus luteum insufficiency, luteinised unruptured follicle. [1] There is a need of time to evaluate some alternative medicine in infertility due to anovulation. While referring the *Samhitas*, the single drug found which can be helpful in such cases is *Shatpushpa*. Indication of use of *Shatpushpa* given in *Kashyapsamhita* directly points out its utility in ovulatory dysfunction. To ascertain effectiveness of *Shatpushpa*, an attempt was made by reviewing previous research works which were carried out in anovula-

tory factor of infertility with the use of *Shatpushpa* in different dosage forms.

### **MATERIALS AND METHODS:**

### Aims and objectives:

- 1. To study description of *Shatpushpa* especially in infertility through *Ayurvedic*texts.
- 2. To study and critically analyse latest researches on *Shatpushpa* in female infertility w.s.r. anovulatory factor.

#### LITERARY REVIEW:

#### **DETAIL DESCRIPTION OF THE DRUG: -**

Shatapusha<sup>[2,3]</sup>

Botanical Name: Anethumsowa.

Family: Umbelliferae

Paryaya: Chhatra, Shatahwa, Madhura, Pitika Swarupa: It is a kshupahaving 1'-2' height.

Habitat: All over India. Part Used: Dried Fruit. Vernacular names: [4]

English: Indian Dil Fruit, Dill, Dill seed, GardenDill

Hindi: Soya, Sova, Sowa. Gujarati: Suva, Suvadana

Bengali: Suva, Sulpha, Shulupa, Sowa, Soolpha.

Kannad: Sabasige, Sabbasige. Marathi: Badishep, Shepa, Shepu.

Punjabi: Soya, Sowa.

Tamil: Satakuppa, Shatakupivirai, Satakuppi.

Rasa Panchaka: Rasa: Katu-Tikta,

Guna: Laghu, snigdha, tikshna.

Virya: Ushna. Vipaka:Katu.

Doshaghnata:Kaphavatashamaka.

### **Chemical Constituents**

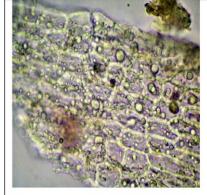
Dihydrocarvone, carvacrol, safrole and thymol, pinene, dphellandrene, dillapiol, d

phellandrene,-terpinene, carvone, caryophyllene, myristicin, eugenol, anethofuran (essential oil); carvone, (+)limonene (dill oil); glyceryl esters of saturated and unsaturated fatty acids, vicenin (6,8-dicglucosyl-5,7,3'-trihydroxy-flavone), xanthone glycoside-dillanoside (fruits); tripetroselinin, petroselinicdiolein, dipetroselinicolein, dillapional (seed oil); benzodipyrangraveolone, carvone (plant); carvone, dihydrocarvone, carvacrol, methyl benzoate

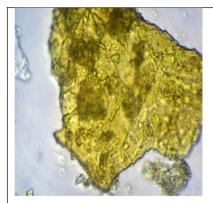
**Powder Microscopy:** When *Shatpushpa* is studied under microscope, following structure can be visualised Spiral vessels, Mesocarp cells, fibers with oil globules, Endosperm with oil globules, aleuronegrains and micro-rosette crystals were the structures shown

in powder microscopy. [5]

### Microscopic features of Shatapushpa



Endosperm cells with oil Globules (
after staining)



Endosperm cells with oil globules

Planning of Administration of Shatpusha kalpa powder:

### Kalpa method [6]

Literary meaning of word *kalpa* is to grow or to increase. The concept of *Kalpa Chikitsa* in the management of chronic diseases is known since *Samhita Kala*. The *Kalpa Chikitsa* is a unique approach of therapy, where a specific drug is administered in a gradually increasing dose is tapered in the inverse order of the increased dose to the level of initial dose. During this period the patient is kept on suitable specific cereal or non-cereal diet. Choice of diet and its regime depends on the nature of disease it also depends on the status of *Agni-Bala* of the patient and adaptability with drugs and *Kala* of the treatment.

### *Kalpa* schedule used in the present study was as follows:

According to *Kashaypa* Hundred *Pala* powder of *Shatpushpa* should be stored in new earthen pot. After getting up in the morning (of previously taken meal), according to the capacity of patients 1/4*Pala*, 1/2 *Pala* or 1 *Pala* of this powder should be licked with *Gau-Ghrita*. After its digestion the patient should eat cooked rice mixed with milk. After using hundred *Pala* of *Shatpusha Kalpa* the patient will conceive. <sup>[7]</sup>

### Dosage:

The initial dose of ½ *Pala* of powder drug was administered licked with *Gau-Ghrita*. The dosage was increased gradually according the Digestion capacity of patient.

Total 90 days' period of study. So first 45 days *Shatpusha Kalpa* should be taking gradually increasing method and same last 45 days it should be taking decreasing method. The dose increase gradually till a maximum dose of 4800gm [100 *Pala*] which was maintained for 45 days and then gradually decreased till the Minimum doses of 12gm every day morning and evening.

## SHATPUSHPA KALPA DOSE SCHEDULE Increasing manner of dose-

Dose	Minimum Dose	Days	Total Dose
12 gm	6gm BD	5 days	60gm
24gm	12 gm BD	6days-11 days	144gm
36gm	18gm BD	6 Days-17 days	216gm
48 gm	24gmBD	6days-23 days	288gm
60gm	30gm BD	7days-30 days	420gm

72gm	36gm BD	7 days-37days	504gm
84 gm	42 gm BD	8 days- 45days	772gm

### Decreasing manner of dose-

Dose	Minimum Dose	Days	Total Dose		
84gm	42gm BD	8days-53 days	772gm		
72gm	36gm BD	7days- 60days	504gm		
60 gm	30gm BD	7 days- 67days	420gm		
48gm	24gm BD	6 days-73days	288gm		
36gm	18gm BD	6 days-79 days	216gm		
24gm	12gmBD	6 days-85days	144gm		
12gm	6gm BD	5 Days-90days	84gm		

## Probable *Tridoshic* involvement in the Menstrual cycle: -

The process of development and enlargement from primordial follicles to the Graffain follicle is said to be due to *Kapha*, as one of the function of *Kapha* is *U-pachaya* which means development. <sup>[8]</sup> *Pitta* is responsible for all type of *Paka Karma* in thebody <sup>[9]</sup>, so here; the role of *Pitta* can be understood as maturation of graffain follicle and conversion of androgens into estrogens (Aromatization). Differentiation or separation and then expulsion are also the functions of *vata*. <sup>[10]</sup> So, here *Vata* is responsible for the rupture of follicle and thus for main event ovulation.

These are the normal functioning of *Doshas*but, if there is vitiation of *Kapha*, there is no proper development of follicles. Vitiated *Vata* causes premature luteinisation of follicles and thus causes anovulation. Here, the function of *Pitta* is somewhat suppressed by *Vata* and *Kapha*, so there is reduced rate of aromatization (*Pitta* being not enough to convert increased androgens into estrogen causing androgen excess) and no maturation of follicles occurs. Hormonal imbalance first disturbs ovarian cycle which later on reflects by menstrual cycle.

### DISCUSSION

There is no direct description of anovulation in *Ayurvedic* texts but certain words found in our texts can be correlated with anovulation i.e. *Nashtartava*<sup>[11]</sup>, *Abeejam*<sup>[12]</sup>, *Nashtabeejam*<sup>[13]</sup>

### MODE OF ACTION OF SHATPUSHPA POW-DER-

Shatpusha is having Ushna Virya, Vatanulomaka and Vata Shamaka drug so especially it acts on Vata Pradesh Pradhan Kati and corrects the ApanaVatadushti which regulate the menstrual cycle. Due to KatuVipaka it corrects the Dhatwagni and release the obstruction of nutrition of next Dhatus and finally Artava Upadhatu also which gets nutrition from its mother Dhatu i.e. RasaDhatu. it stimulates the Artvaha srotas and Beejagranthi. By the stimulation of Beejagranthi (ovary), Follicles size was increase and lead to ovulation.

Ovaries contain receptors which receive hormone under the influence of hypothalamus and pituitary gland. The drug seems to stimulate these receptors which lead to enhance ovarian function and resulting in ovulatory cycles. *Shatpushpa* by virtue of phytoestrogenic property bring down the level of insulin resistance in the body and restore the cellular imbalance that is a major cause of PCOS. It also increases endometrial thickness and the amount of cervical mucus.

According to Rasapanchaka of ShatpushpaRasadhatu Vridhikara and will remove Ama and will help in its proper functioning. Having Madhura Rasa, KatuVipaka and Ushna Virya which is a rare quality found only in Shatapushpa so it has Kapha Nashaka property also and will clear all the channels by removing Margavrodhaand due to Ushna Guna it normalizes vitiated Vata after normalize the Vata & Kapha Dosha, it increases vitality power of reproductive organ & prepare Kshetra for conception because Samanya kapha have an anabolic action on body.

### CONCLUSION

Acharya Kashyapa highlighted the effect of Shat-pushpa exclusively in many gynaecological disorder such as "Artvabamyanapashyanti" (amenorrhoea), Pashyantibishphala cha ya (without fruit means women not having child/can't conceive) Atiprabhut (menorrhagia) Atyalpam (Hypomenorrhoea) Atikantam (menopause) Abisransi (having improper flow of menstruration). All these menstrual disorder are more or less associated with hormonal imbalance, poor or

nill estrogen secretion or disturbed HPO axis, poor haemoglobin, nutritional deficiency. Indication of this Shatpushpa kalpa covers all type of female reproductive disorder, Shatpushpa works as a nector. Modern management of infertility due to anovulation is associated with many hazards. Ayurveda science with its proven track record is helpful in female infertility. Shatpushpa mentioned by Acharya Kashaypa closely related to infertility related to ovarian dysfunction. Unique administration of ShatpushpaKalpa (increasing amount of Shatpushpa along with Gau-Ghrita as an oral medicine in management of anovulation show better result in regularizing menstruation and normalizing the ovarian dysfunction.

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