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A CONCEPTUAL REVIEW ON VATA SRUNGA (VEGETATIVE BUD) AS A GARBHASTHAPANA DRAVYA

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ABSTRACT:

Every human being has inherent desire to continue one's own race; to become a mother is one of the most cherished desires of every woman. Ayurvedic ante – natal care is highly effective in maintaining a healthy pregnancy and delivering a healthy progeny. *Garbhasthapana Dravya* act as fertility modulator due to its active principle which is taken during the ante natal period. In present era women are facing problems in conceiving due to changed lifestyle or having repeated abortion. *Garbhasthapana Dravya's* will help in the abortion control as well as in infertility as explained in various Samhitas. One among them is '*Vata*' (Ficus benghalensis) belongs to the family Moraceae.

Its medicinal properties are well documented in the ayurvedic text. One of its main properties is it act as *Garbhastapana Dravya*.

In this article an attempt is made to highlight the usage of such potent medicinal plant as *Garbhasthapana Dravya* that can be a promising tool to have a healthy progeny.

KEY WORDS: Garbhasthapana, Vata srunga, Vandhyatwa, Infertility.

INTRODUCTION:

Ayurveda is gaining popularity day by day. Herbal medicine is still the mainstay of about 75 - 80% of the world population, mainly in the developing countries, for primary health care. This is primarily because of the general belief that herbal drugs are without any side effects besides being cheap and locally available. The one medicinal plant among them is *Vata*. *Vata* is considered as one among the *Pancha Valkala* which constitute the famous *Ksheeri Vrukshas*.¹

Vata, which is very commonly available drug, is mentioned for the management of many ailments. Its *srunga* (vegetative bud) along with *gokshira* is indicated specially in *stree vandhyata* by Acharya Vagbhata² and Bhavamishra.³ Reference of the drug *Vata* as *Garbha Prada* is available in Bhava prakasha and as effective in *stree vandhyata* in Ashtanga Hridaya.

Vata sunga yoga is mentioned for garbhasthapana in Gadanigraha.⁴

"Vandhya nirapathya stree" (Ayurvedeeya Shabda kosha)

The couple who are infertile is said to be *Nindhya* according to Acharya Caraka. They are compared to the tree without branches. To produce a progeny four things are necessary i.e. *Rtu*, *Kshetra*, *Ambu* and *Bija*. If there is *Dusti* in any of the above factors it will lead to infertility.

Infertility has been one of the yet unsolved major complaints of womanhood. The system of modern medicine has discovered many of its etiological factors and provides measures for its management. The school of Ayurveda mentions a few principles about *Vandhyatwa* and describes some measures to combat the same.

Many of the drugs mentioned under various contexts in Ayurvedic literature are being subjected to the stress of overuse, due to increasing demand. This leads to exploitation of the rare plant community and gives scope for unauthentic substitution and adulteration. Hence it is better to use locally available plants which have abundant availability and less controversial opinions. *Vata* enjoys abundant distribution here around and does not entertain any controversial opinions in related literature.

OBJECTIVE:

The idea of this literature review is to, understand the effect of "Vatankura" with respect to its chemical constituents and guna karma on the Garbhasthapana action.

MATERIALS:

Various Ayurvedic Samhitas, different books and articles were critically studied.

METHODOLOGY:

REVIEW:

Acharyas had defined *Garbhasthapana* action as that which removes all the abnormalities in body, which cause obstacles in the conception. They also remove the disorders in foetus which leads to its foetal wastage. Out of those disorders of foetus "*Garbha srava*" or "*Garbhapata*" (abortion) is important to understand. In Charak Samhita "*Garbha kara Bhava*" are described which are the ideal factors required for birth of an ideal baby. The absence of any defect in these factors leads to problems in conception or in sustenance of pregnancy. The same thing is described as *Garbhopaghatkar Bhava*. Both factors represent the causes of difficulties in *Garbhasthapana* action. They are also known as the structural and functional abnormalities in organs related to conception and female gametes. Resulting in Female Infertility.

Infertility is defined as a disease of the reproductive system defined by the failure to achieve a pregnancy after 12 or more of regular unprotected sexual intercourse.

PATHOPHYSIOLOGY OF INFERTILITY IN FEMALES:

Hypothalamus-Pituitary-Ovarian Axis Imbalance

Dysfunctional Ovulation

Impaired Corpus Luteutm function

Inadequate Progesterone Level

Impaired Endometrium and decreased endometrial receptivity

Implantation Failure - Infertility

AYURVEDA ON INFERTILITY:

Ayurveda, the ancient medical science, explains infertility as *Vandhyatva*. *Vandhyatva* is said to be the outcome of *Dushtaartava*, *Yonidoshas* and *Beeja doshas*. Acharyas have explained their treatment in detail. Various medicinal plants are described as *Vandhyatva Naashaka* (Anti-Infertility) in the Ayurvedic texts.

One among them is *Vata* or *Nyagrodha*.

MENTIONING OF VATA/VATANKURA (VEGETATIVE BUD) AS GARBHAPRADA, ANTI-INFERTILITY IN CLASSICS:

VEDAS:

In Atharva Veda there is mentioning of drug Vata/Nyagrodha which is useful in Yoni roga, Shukra shonita doshas.⁵

BRIHAT TRAYEES:

CARAKA SAMHITA -

The qualities of Nyagrodha pallava is told as 'Kashaaya stambhanaa Sheeta hitaa Pittaatisaarinaam.'6

SUSRUTA SAMHITA -

It is explained in treatment of *Puyakya sukra dosha*. It is mentioned to be used in case of women desiring of male child.⁸

ASTANGA HRUDAYA –

Vata shrungashtaka is used for Garbha sthirata. In Shareera sthana first chapter Vatasrunga (vegetative bud) along with gokshira (cow's milk) is indicated specially in Stree Vandhyatwa.

"Nyagrodhasya prathamodhbhinna praroho vatasu<mark>nga</mark>ha tasyaashtakamithi"

Sungam- pradhamodbhinnam patrankuam iteendu

In Ashtanga Hrudaya in the context of *Garbha sthapana* says that *payasaa......peetam vatasrungaashtakam tathaa* ||

i.e., Eight Vata Srunga along with cow's milk is advised to take for the purpose of Garbha stapana

REFERENCES IN OTHER SAMHITAS:

YOGA RATNAKARA -

Yoga Ratnakara in the context of Yoni roga chikitsa has told that Vatasungam along with other drugs when given to a Vandhya Stree, will definitely help in giving birth to a child. He has also commented that Vatankura along with other drugs is Garbhaprada.¹¹

BHAVAMISRA -

In *Yoni Rogaadikaara* while explaining *Vandhya Chiktsa* he tells a woman who consumes *Vatasunga* will give birth to a healthy male child without doubt. ¹²

REFERENCES IN MEDIEVAL PERIOD:

KAIYADEVA NIGHANTU -

Vata is Rooksha, Sita, Grahi, Kashaya rasa and destroys Yoni dosha's. 13

PRIYA NIGHANTU -

Vata is mentioned under *Haritakyadi varga*. Structure of the tree is also explained. It is used in *Atisara*, *Raktasrava* and *Charma roga*. ¹⁴

METHODS OF PUMSAWANAKARMA (MENTIONING OF VATANKURA)¹⁵

Acharya Caraka mentions,

Two intact, healthy leaf-buds (*ankura*) plucked from two eastern or northern branches of a banyan tree grown in a cowshed, along with two perfect (possessing good *rasa*, *virya* etc.) seeds of *dhanya masa* and *gaura sarsapa* should be taken with curd during *pusya naksatra*.

Maharshi Sushruta mentions,

The drug *laksmana*, *vatasunga* (leaf buds), *sahadeva*, *viswadeva* etc. should be pestled with cow's milk, and 3-4 drops of expressed juice should be instilled in right nostril by the woman desirous of a son; she should not spit it.

Ashtanga Sangrahakara mentions,

The woman desirous of a son or daughter should instil herself in right or left nostril respectively, the juice expressed from pestled root of *swetabrhati* uprooted during *pushya naksatra*. Similarly leaves of *Utpala* and *kumuda*, root of *laksmana* and eight *vatasunga* should be used.

Ashtanga Hrudayakara mentions,

The root of *laksmana* pestled with cow's milk should be taken orally or through nostril for achievement of son, similarly leaf buds of *vata* should also be used.

Note: Number of leaf- buds of vata as eight is given as this number has inconceivable activity.

DRUG REVIEW¹⁶

Botanical Name: Ficus bengalensis Linn.

Family: Moraceae

Kula: Vata kula

Synonyms: Dhruva, Mandali, Mahachaya, Nyagrodha, Bahupada, Shrungi, Shrunga, Skandha Janma,

Vanaspati, Raktaphala, Ksheeri.

Gana vargikarana:

Caraka	Mutrasangrahaniya Varga
Susruta	Nyagrodhadi Gana
Bhava Prakash Nighantu	Vatadi Varga

Rasadi Panchaka: Dose: Powder- 3-6gm

Rasa- Kashaya Decoction- 50-100ml

Guna- Guru, Ruksha Latex- 5-10 drops

Virya- Sita

Vipaka- Katu

Dosa Karma- Kapha Pitta Shamak

Actions- Vedanasthapan, varnaropana, raktarodhak, sothahara, chakshusya, stambhan, raktashodhak, raktapittahara, sukrastambhak, mutrasangrahniya, dahaprashamana, garbhasthapana.

Rogaghnata- Vrana, vipadika, amavata, sandhishotha, karnsrava, dantashula, arma, sukra rog, chardi, daha, raktapitta, atisara, prameha, charmaroga, gonorrhoea, leucorrhoea, hyperdipsia.

<u>Useful parts</u>: Twak (Stem bark), Kshira (Latex), Patra (Leaf), Aerial root, Phala (Fruit), Srunga/Ankura (Vegetative bud).

Nutritional description of Ficus benghalensis Linn: 17 Table- 1

Nutrients	Value (per 100 gms)	Units
Calories	72	Kcal
Carbohydrates	12	Grams
Protein	2	Grams
Total fat	2	Grams
Dietary Fiber	8	Grams
Calcium	364	Mg
Phosphorous	43	Mg

PHYTOCHEMISTRY

<u>Table – 2 Phytochemistry of Vata (Ficus bengalensis Linn.)¹⁸</u>

Plant part	Chemical class	Components
Stem bark	Phytosterols	Lanostadienylglucosyl cetoleate, bengalensisteroic acid
		acetate, α-amyrin acetate, lupeol.
Stem bark	Anthocyanidin	5,7-dimethylether of leucopelargonidin-3-O-α-L-rhamnoside,
	derivatives	3',5,7-trimethyl ether of delphinidin-3-O-α L-rhamnoside,
		3',5,7-trimethylether of leucocyanidin, 3',5-dimethyl ether of
		leucocyanidin-3-O-β-D galactosylcellobioside.
Seed oil	Fatty acids	Palmitic acid, oleic acid, linoleic acid, linolenic acid, vernolic
		acid, stearic acid, malvalic acid, sterculic acid, lauric acid,
		myristic acid.
Fruits and	Amino acids	Cysteine, glutamine, methionine, tryptophan, arginine,
Seeds		methionine, citrulline, hydroxyproline.
Fruits and	Polysaccharides	D-glucose, D-fructose, D-galactose, D-arabinose, D-xylose
Seeds		
Leaf	Sterols	β-sitosterol
Leaf	Flavonoids	Catechin, genistein
Leaf	Flavanols	Quercetin-3-galactoside, rutin
Leaf	Leucoanthocyanidins	Leucocyanidin
Leaf	Triterpene	Friedelin
Aerial root	-	Bengalensinone, benganoic acid
Stem Bark	Miscellaneous	Meso inositol, β-sitosterol-α-D-glucose, 6-heptatriacontene-
		10-one, 20-tetratriacontene-2-one, Pentatriacontan-5-one.
Fruits and	-	Glutathione
seeds		
Heart wood	-	Tiglic acid ester of taraxasterol

PHYTOCHEMISTRY OF VATANKURA (VEGETATIVE BUD): 19

- Flavane dihydro flavanol
- Saponins
- Glycosides
- Phenols
- Anthocyanins
- Sodium salts of nitro derivatives of aromatic amino acids
- Peptide bond proteins
- Tryptophan
- Starch
- Steroids
- Carbohydrates

DISCUSSION:

Garbhasthapana action is to prevent the abortion or miscarriage which is due to the organ abnormalities of foetus, sometimes due to malformation of foetal organ or some maternal pathological condition.

Many references are available about the useful part of *Vata*. The commonly used parts are Vegetative bud (*ankura*, *shrunga*), tender leaves(*pallava*), bark(*twak*), prop roots(*praroha*), fruit(*phala*), latex(*ksheera*). When we analyse the part of *Vata* to be used in *Vandhyatwa*, *Vata* srunga was seen to be widely used. The reason behind that, with the help of Acarya Sushruta's concept of "*Loka purusha saamyo ayam*" we can assume that srunga being the vegetative bud of the drug posses the quality of preservation and protection of tender and delicate parts. This can be implied in human beings also.

Vatankura is having the properties of Kashaya rasa (astringent) Seeta virya (cold potency), Kapha pittahara (alleviates Kapha and Pitta dosha), Yoni dosha hrit (alleviates disorders of genital tract) and with the above-mentioned properties it is Rakta stambhana (haemostasis).

Phytochemical components of plant extracts have been discovered as bioactive substances that may be responsible for the varied actions observed when herbs are used medicinally. Phenolic chemicals are universally acknowledged as antioxidants and free radical scavengers against oxidative damage. The existence of these chemicals in Ficus benghalensis vegetative bud extract, like tannins, flavonoids, and phenols may lend credence to its local use for the care of oxidative stress-induced disorders. Tannins have been utilized for centuries to treat diarrhoea, bleeding, and detoxification.²⁰

As mentioned earlier, *Vata* contain tannin, glycosides and flavonoids. The young bud contains 10% tannin, wax, caoutchouc.

The tannins present in *Vata* act as astringent, correct uterine or cervical bleeding. *Vata* is known to trigger cervical mucus secretion and promote endometrial thickening during proliferative phase.

Hence it prevents miscarriage by ceasing the bleeding due to haemostasis action of tannin compounds.

CONCLUSION:

Plants have been serving the humanity for centuries by providing a good source of medicines. Active constituents from plants are isolated and being used for diagnosis, treatment, mitigation, and prevention of various diseases,

but many crude drugs are also in use. Ficus benghalensis Linn. is one of the most important plants of traditional medicines and is still in use, to treat various diseases, particularly diabetes, reproductive system disorders, inflammatory conditions and abscesses. No controversies about the drug *Vata* were seen in any of the related literatures and the exact botanical source of *Vata* is identified as Ficus benghalensis with the help of suitable justification. In maximum number of *yogas* indicated for *stree Vandhyatwa* contain *Vata* as a main ingredient, especially *Vatankura*. In Ashtanga Hrudaya *Vata shrungashtaka* (eight vegetative buds) along with cow's milk is indicated specially in *stree vandhyata* and *Garbha sthirata*. Acharya Bhava Mishra, and Yoga Ratnakara has also explained the role of *vata srunga* in *Vandhyatwa*. Many other Acharyas has also explained the same. Hence *Vatasrunga/Vatankura* is a valuable and easily available medicament in the management of female infertility. Further scope of the study is to evaluate property of each organic compound of *Vatasrunga* acting on prevention of miscarriage and stabilizing pregnancy by animal experimentation and clinical trials.

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