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# EFFICACY OF *VAJRAKANJIKA* IN THE MANAGEMENT OF *STANYA KSHAYA* – A CLINICAL STUDY

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# **ABSTRACT**

Stanya Kshaya is a common problem seen in OBG practice. Stanya Kshaya or Nasa is a condition where the mother experiences insufficient production of milk to breast feed her baby. As the etiological factors, which lead to Rasa kshaya causes Stanya kshaya. Whatever treatment, is directed towards normalizing Rasa kshaya has to be applied for Stanya Kshaya too. Hence, an effort is made to evaluate the efficacy of Vajrakanjika in stanya kshaya. Objectives: To evaluate the efficacy of Vajrakanjika in Stanya kshaya. Material and Methods: A total 20 patients who fulfilled the inclusion criteria were selected and 20 Patients were administered with Vajrakanjika 10ml, twice daily, after food for a period of 20 days. They were followed up every 15 days for 1 month after intervention. Initially all were noted and changes in signs and symptoms in each follow up were observed and noted.

Results: Comparing all parameters within the Group, before treatment to After treatment, At Follow up 1, At Follow up 2, the p value (<0.001) revealed statistically Highly Significant difference.

Keywords: Stanya Kshaya, Lactational deficiency, Vajrakanjika.

## INTRODUCTION

In fetal life, the baby receives nourishment from the mother through the placenta. After birth, the baby continues to receive all its nutrients from the mother through breast milk. Breast-feeding is intended to be a joyful loving connection, a graceful welcoming and comfort of a soul into a new body. The mother's breast being located in the *Anahata chakra*<sup>1</sup> (heart center) of the body signifies that the breasts are an instrument of love and nurturing, meant to give love outwardly through breast milk and to connect in an intimate way. It is a silent language of love. In an

optimal setting breast milk is *amrita*, nectar, for the growing child.

The WHO recommends exclusive breastfeeding for the first six months of life, after which "Infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age or beyond.<sup>2</sup>

Now a days woman are prone for both professional and personal stress along with improper mode of life style and food habits which leads to various disorders. Amongst these, *Stanya Kshaya* is a one. It is a

great irony that such an important problem that is directly associated with the health of the mother and child, which is largely neglected. Stanyakshaya occurs due to agnidushti, srotoavarodha, rasadhatu kshaya. Stanyaksaya occurs due to psychological factors of mother (krodha, shoka, bhaya, and avatsalyatwa) and also due to apathya aahara vihaara of mother. Stanya kshaya can be compared lactational deficiency, hypogalactia in modern parlance on the basis of its signs and symptoms.

Today *Stanya kshaya* (hypogalactia) or *stanya nasa* (agalactia) is a very common problem, especially with primiparous mothers. These two conditions are together described in *ayurveda samhitas* with their *nidana*<sup>3</sup>, *lakshana*<sup>4</sup> and *chikitsa*<sup>5</sup> along with *stanyajanana*<sup>6</sup>, *stanya vardhaka dravyas* as well as *stanya vardhaka pathya aahara and vihaara*<sup>7,8</sup>. Many formulations and *pathya aahara vihaara* are explained in *Ayurveda* to treat *Stanya kshaya*. *Yoga Rathnakara* proposes a *Vajrakanjika yoga*<sup>9</sup> in the context of *Ksheeraroga adhyaya*. Here an attempt is made to evaluate the efficacy of *vajrakanjika* in *stanya kshaya*.

# **METHODOLOGY**

The present study was carried out on 20 patients attending OPD and IPD of Prasooti Tantra Evam Stree Roga Department, SKAMCH & RC Bangalore.

# **OBJECTIVE OF THE STUDY**

• To evaluate the efficacy of Vajrakanjika in Stanya kshaya.

### **SOURCE OF DATA**

20 patients with clinical features of *Stanya kshaya* coming under the inclusion criteria approaching the OPD and IPD of Prasooti Tantra Evam Stree Roga Department, SKAMCH & RC, Bangalore was selected for the study, the sample collection was initiated post approval, from the Institutional Ethical Committee.

# Sampling Technique

The subjects who fulfill the inclusion and exclusion criteria and complying with the informed consent (IC) were selected for the study.

### METHOD OF COLLECTION OF DATA

- 20 Patients diagnosed as *Stanya kshaya* were selected for this study.
- A case proforma containing all the necessary details pertaining to the study was prepared.
- The data obtained in both groups was recorded, tabulated and statistically analysed using suitable statistical methods.

# Diagnostic Criteria

Both Primi and multi gravida with the *lakshanas* of *Stanya kshaya*.

### **Inclusion Criteria-**

- Age group of patients in between 18 to 35 years.
- Patients diagnosed with Stanya kshaya.
- Patients from 5<sup>th</sup> day of delivery.

### **Exclusion Criteria-**

 Patients having H/0 any Systemic diseases that may interfere with the course of treatment.

# **Investigations**

- Haemoglobin (Hb%)
- Fasting blood sugar (FBS)
- Serum Prolactin

### Intervention

A clinical study with pre test and post test was conducted on 20 selected patients. Group A: Patients were given *Vajrakanjika* for a period of 20 days. Dose-10ml - Twice a day, After food.

# **Study Duration**

Study was conducted for 50 days.

Pre test- on 1st day

Post test- on 21st day

Follow up 1 - on 35<sup>th</sup> Day

Follow up 2 - on 50<sup>th</sup> Day

# METHOD OF PREPARATION OF VAJRAKANJIKA

• The raw drugs pippali (Piper longum), pippali mula (Piper longum), chavya(Piper chaba), shunti (Zingiberofficinale), yawanika (Carum copticum), haridra (Curcuma longa), daru haridra (Berberis aristata), Krishna jeeraka

- (Carum Carvi), sweta jeeraka (Cuminum cyminum), sauwarcala (Sochal Salt) and vida (Ammonium salt) was collected, made into coarse powder and mixed together.
- 1.1gms of coarse powder was packed in a sachet.
- Given to patient by preparing 1.1gms of coarse powder with 10 ml of kanji boiled to 40 ml of water and reduced to 10 ml.
- Dose 10ml twice daily, after food, for 20 days.

# **Assessment Criteria**

Table 1: Assessment Criteria and Scoring Pattern

S.No	Assessment Criteria	Scoring Pattern	
1	Stanya Kshaya (Decrease in amount of milk)	Present	Absent
2	Stana Mlanata (Laxity of breast)	Present	Absent
3	Stanya Asambhava (Absence of lactation)	Present	Absent
4	Stanya Alpata (Decrease in ejection of breast milk)	Present	Absent
		CRITERIA	SCORE
	Stanya Pramana (Amount of breast milk)	No ejection	GRADE 0
5		Drop by Drop ejection	GRADE 1
		Stream like ejection	GRADE 2
		Forcefull ejection	GRADE 3
		CRITERIA	SCORE
		Feeding 0-2 times/ Day	GRADE 0
6	Breast feeding frequency	Feeding 3-5 times/ Day	GRADE 1
		Feeding 6-8 times/ Day	GRADE 2
		Feeding 9-11 times/Day	GRADE 3

#### **OBSERVATIONS**

In the present study it is observed that maximum of 10 patients were in the age group of 24-29 years, maximum of 12 patients were Hindu's, 7 patients were Graduates, 18 patients were home- makers, all 20 patients from urban area, all 20 patients had mixed diet, 14 patients were from middle and upper

middle class, all 12 patients had normal appetite, 13 patients were primi para, 16 patients were underwent LCSC mode of delivery, maximum of 10 patients had *vata kapha prakruti*, all 20 patients had *stanya kshaya* as chief complaint and 16 patients had *stanya alpata* as chief complaint.

# **RESULTS**

**Table 2:** Effect of treatment on *stanya kshaya* as observed within the groups

BEFORE TREATEMENT – AFTER TREATEMENT							
PHASE	PRESENT	ABSENT	χ2 VALUE	P-VALUE	REMARKS		
BT	20	0	19.52	< 0.001	HS		
AT	AT 6 14						
BEFORE TRE	BEFORE TREATEMENT – AT FOLLOW UP 1						
PHASE	PHASE PRESENT ABSENT χ2 VALUE P-VALUE REMARKS						
BT 20 0 26.0				< 0.001	HS		
AF 4 16							
BEFORE TREATEMENT – AT FOLLOW UP 2							

PHASE	PRESENT	ABSENT	χ2 VALUE	P-VALUE	REMARKS
BT	20	0	32.72	< 0.001	HS
AF	2	18			

In *Stanya Kshaya*, before treatment to after treatment, before treatment to follow up 1 and before treatment to follow up 2, the p value (< 0.001) revealed statistically highly significant.

**Table 3:** Effect of treatment on *stanya alpata* as observed within the groups

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BEFORE TREATEMENT – AFTER TREATEMENT								
PHASE	PRESENT	ABSENT	χ2 VALUE	P-VALUE	REMARKS			
BT	16	4	24	< 0.001	HS			
AT	2	18						
BEFORE TE	BEFORE TREATEMENT – AT FOLLOW UP 1							
PHASE	PRESENT	ABSENT	χ2 VALUE	P-VALUE	REMARKS			
BT	16	4	26.66	< 0.001	HS			
AF	0	20						
BEFORE TREATEMENT – AT FOLLOW UP 2								
PHASE	PRESENT	ABSENT	χ2 VALUE	P-VALUE	REMARKS			
BT	16	4	26.66	< 0.001	HS			
AF	0	20						

In *Stanya alpata*, within the group analysis before treatment to after treatment, before treatment to follow up 1 and before treatment to follow up 2, the p value (< 0.001) revealed statistically highly significant.

**Table 4:** Effect of treatment on *stanya pramana* as observed within the groups

Phase	Mean	S.D.	S.E.	T Value	P Value	Remarks
BT-AT	1.45	0.6	0.13	10.72	< 0.001	HS
BT-AF1	1.55	0.6	0.13	11.46	< 0.001	HS
BT-AF2	1.65	0.4	0.10	15.07	< 0.001	HS

In *Stanya pramana*, within the group analysis before treatment to after treatment, before treatment to follow up 1 and before treatment to follow up 2, the p value (< 0.001) revealed statistically highly significant.

**Table 5:** Effect of treatment on breast feeding frequency as observed within the groups

Phase	Mean	S.D.	S.E.	t value	p value	Remarks
BT-AT	1.35	0.7	0.16	8.10	< 0.001	HS
BT-AF1	1.75	0.8	0.19	9.19	< 0.001	HS
BT-AF2	1.95	0.19	0.16	11.48	< 0.001	HS

In Breast feeding frequency, within the group analysis before treatment to after treatment, before treatment to follow up 1 and before treatment to follow up 2, the p value (< 0.001) revealed statistically highly significant.

### DISCUSSION

In *sutika* there is overall *dhatu kshaya awastha* due to *pravahana vedna* (labour pains and bear down efforts) and loss of *rasa*, *rakta and kleda* during *prasava*. So she gets deprived in *bala* and *agni*. As a result there is *vata pradhana tridosha prakopa* leading to *rasa dhatu kshaya* and consequently *upadhatu* 

kshaya (stanyakshaya). Main causes are langhana, rukshannapana sevana, karshana, atyanta apatarpana, shodhana atiyoga, krodha, bhaya, shoka, kama and avatsalyatwa. Stanya is the upadhatu of rasa dhatu. So rasa vardhaka diet and drugs will increase the quantity of stanya.<sup>10</sup>

In the present study Vajrakanjika has been selected

for internal administration as referred from *Yogaratnakara*. Galactogogues are medications or substances of herbal or synthetic origin, used to induce, maintain or augment milk production.

The drug vajrakanjika has usna vriya which is main-

ly vata shamaka, vrishaya, stanyavardhaka, deepana, pachana and garbhasaya shodhaka. By enhancing agni and normalcy doshas helps to improve the rasa dhatu that leads to proper stanya utpatti.

**Table 6:** Pharmacodynamics of *vajrakanjika* 

	Rasa	Guna	Virya	Vipaka	Karma
Vajrakanjika	Katu, Tiktha,	Laghu	Ushna	Madhura Katu	Vata Kapha Hara, Deepana, Pachana, Vrishya,
	Kashaya.	Snigdha,			Agnivardhaka, Srotosodhaka, Balya, Stanya-
		Ruksha			janana, and garbhasayashodhaka.

Vajrakanjika is mainly having Katu, Tiktha, Kashaya Rasa, Ushnavirya, Madhura Katu Vipaka Dravyas and act on Rasavahisrotas and Rasagni. Being Ushna in Virya these are Uttejaka (stimulant), Agnivardhaka, Deepana-Paachana, Srotosodhaka, Shothaahara, Vatanulomaka, and being Madhura in Vipaka are Vrishya, Rasayana, Dhatuvardhaka.

Drugs like kanji, pippali, pippalimoola, cavya, sweta and krishna jeeraka, saindava and vida lavana having deepana, pachana and act as rasa dhatu vardhaka, balyakara, dhatuposhaka, corrects agni mandya, which in turn improves rasa dhatwagni which helps for stanya utpatti. Also these dravyas being srotoshodhaka, clear the obstruction in stana vahasrotas and thus ease the process of galactokinesis.

Chemical constuitions of drugs like (*Krishna* and *Shwetajeeraka*, *Pippali*)Cuminyl alcohol, 1-8 cineol, D- glucopyranoside, Volatile oils (45-65% carvone, limonene) are carminative, anti- inflammatory, galactogogue and nerve stimulant, thus helps in the process of lactogenesis. Some drugs are uterine stimulant and have oxytocic action (*Krishna* and *Shwetajeeraka*). These dravyas can also be used in healthy lactating women to regain the body strength lost during pregnancy and labor.

# CONCLUSION

The *Stanya* is *Jivana Amsha* as it is the chief source of nutrition and diet to the infant. *Stanya kshaya* can lead to nutritional deficiency and hamper the growth

and development of the infant. From result it can be concluded that all patients has showed highly significant results in all the parameters i.e, stanya kshaya, stanya alpata, stanya pramana and breast feeding frequency. Overall study concludes that stanya kshaya, occurring as a result of dhatu kshaya and agni mandhyata. It can be managed effectively and safely by stanya janana and stanya vardhaka dravyas. In addition to this, these dravyas can be used in healthy lactating mothers also to enhance breast milk production and regain body strength especially in sutika avastha. No adverse effects were observed during the course of this study.

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