

ROLE OF *KARPASABEEJA CHURNA* IN THE TREATMENT OF *STANYAKSHAYA* - A PILOT STUDYRajni Kanojiya¹, [Shreyes. S²](#), [Yogitha Bali M.R³](#)

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**ABSTRACT**

Background: *Stanyakshaya* is the common problem noticed in about 40% patients in our clinical practice. Due to adaptation of Western culture, women get exposed to stress and strain. Lactation is the process associated with psychosomatic condition and lifestyle. Breast milk is the perfect food for a normal neonate. It is the best gift a mother can give her baby. Breast feeding is the ideal form of infant feeding and is crucial for lifelong health and wellbeing.

Design: This was a single pilot study. 10 patients (lactating mothers, both primi and multi gravida) who fulfilled the eligibility criteria were selected for the study and the assessments were made before the treatment on the 1st day and after the treatment on the 30th day and follow up was done on 20th day after the completion of treatment.

Intervention: *Karpasabeejachurna* (6gms) was administered with lukewarm water as the *Anupana* after food twice a day for one month and follow up carried out on 20th day after the completion of treatment.

Results: *Karpasabeejachurna* showed statistically significant results in the *Stanamlanata*, *Stana*/milk ejection, breast feeding, weight of the baby and breast engorgement with $p < 0.001$.

Conclusion: *Karpasabeejachoorna* showed to be effective in increasing the *Stanya* and it is a *Stanyajanakadravya*.

Keywords: *Stanyajanana*, *Karpasabeeja Churna*, *Stanyakshaya*, Breast milk.

INTRODUCTION

Breast milk is like nectar to the child, which gives many benefits to both mother and child. Ayurveda Classics has praised the breast milk very much and proposed the exclusive breast feeding up to 6 months and continuation up to 1yr or more. The WHO recommends exclusive breastfeeding for the first six months of life, after which "infants should receive nutritionally adequate and safe complementary foods while breast feeding continues for up to two years of age or beyond.^[1] The AAP recommends exclusive breast feeding for the first six months of life.^[2] Furthermore breast feeding should be continued for at least the first year of life and beyond for as long as mutually desired by mother and child. Due to the adaptation of western lifestyle and more expose towards stress and strain, the women face many problems. Amongst these, *Stanyakshaya* is a major problem, which seems to be very simple condition but pertaining to children's health it is a major problem. In Asian & Tropical countries like India prevalence of lactational deficiency may be 30- 40%.^[3] Breast feeding promotes physical and emotional bonding between the mother and child leading to better parent-child adjustment. *Stanyaksaya* is a vital problem with increasing prevalence, ranging from 23-63% in western countries and 45-53% in some part of India. ^[4] It is a great irony that such an important problem that is directly associated with the health of the mother and child is largely neglected. Complications of *Stanyakshaya* are exhaustion, stress, PCOS, CA of breast, hypothyroidism, Weight Loss, Obesity, Infection, No Milk for Baby, and Hormonal Imbalance. Drug use during pregnancy and lactation is an almost inevitable event. Some of the drugs may have adverse effects on the baby on exposure. It is therefore necessary for the physician to be aware of the changes in pharmacokinetics and pharmacodynamics during pregnancy. Knowledge about the known teratogens and drugs safe

to be used during pregnancy is essential on the part of the prescribing physician. There are many factors affecting drug passage into the milk and thus affecting the child in some cases. We also find some drugs affecting lactation. No specific effective and safe treatment has been proposed so far in conventional system of medicine. Ayurveda is the oldest ancient system of Indian Medicine practiced since 5000yrs. As Ayurvedic drugs have no side effects, can be safe for both baby and the mother. In this science, Ayurveda, we can find a large number of the drugs, diet, and behavior regimen which are described to be as *Stanyajanana* and useful in the management of *Stanyakshaya*, but no scientific studies are available to validate this. In the view of the above, present study was designed to evaluate the *Stanyajanana* effect of the Ayurvedic drug prescribed in the Ayurveda classics. The drug named *Karpasabeeja Churna* proposed by Yogaratnakara ^[5] was used in this study to evaluate the effect of its *Stanyajanana* property.

Methodology

This was a single pilot study. 10 patients (lactating mothers, both primi and multi gravida) aged between 18 to 35yrs with the features of *Stanyakshaya* and who fulfilled the eligibility criteria were selected for the study from OPD and IPD of Prasooti Tantra and Stree Roga Department of Rajiv Gandhi Education Society's Ayurvedic Medical College Ron, Karnataka. Patients with the features of *Stanyakshaya* and from the 5th day of delivery were included for the study. Mothers with pathologies like engorgement, cracked or sore nipples, mastitis, flat/inverted nipples, history of breast abscess, or any systemic diseases that may interfere with the course of treatment were excluded from the study. Informed consent was obtained from all the patients and ethical clearance was obtained from the institutional review board. Assessments were made before the treatment on the 1st day and after the

treatment on the 30th day and follow up was done on 20th day after the completion of treatment. Investigations like Haemoglobin % (Hb%), Fasting blood sugar (FBS) and Serum Prolactin were also carried out.

Intervention In this study, all the 10 patients were given *Karpasabeeja Churna* in the dose of 6gms, with lukewarm water as the *Anupana* after food twice a day for 30 days with instructions given on *Pathya Ahara* and *vihara* to be followed. The medicine *Karpasabeeja Churna* was prepared by collecting the raw drugs from the Ayurvedic pharmacy under the supervision

of *Dravya Guna* and the *Rasashastra* department at *Rasashala* attached to college. The ingredients mentioned in formulations were taken and clean then dried properly. After drying, the entire ingredient was powdered separately and then sieved to use.

Outcome measures:

- a) **Subjective Parameters:** *Stanamlanata* and Milk Ejection
- b) **Objective Parameters:** Baby weight, Breast feeding frequency, Breast engorgement

Table 1: Assessment Criteria

Sl.No	Parameters	Lakshanas	Grading
1.	<i>Stanamlanata</i>	<i>Shushkatwa, Stanya Alpata, Stanya Asambhava</i>	3
		<i>Shushkatwa, Stanya Alpata/ Shushkatwa, Stanya Asambhava/ Stanya Alpata, Stanya Asambhava</i>	2
		<i>Stanya Asambhava/ Shushkatwa/ Stanya Alpata</i>	1
		None	0
2.	Milk Ejection	Forceful	3
		Streamlike	2
		Drop by Drop	1
		No Ejection	0
3.	Baby weight	<i>Sharir bhar vruddhi</i> (record on every 15 days)	3
		<i>Aruddhi</i> (no weight gain)	2
		<i>Alpa</i> (100 to 175 gms per week)	1
		<i>Adhika</i> or <i>Prakrut</i> (above 175 gms per week)	0
4.	Cry for demand (Rodan)	<i>Adhik</i> - Demand feeds before every 2 hrs.	2
		<i>Alpa</i> -Demand feeds after every 2-3 hrs	1
		<i>Prakrut</i> -Demand feeds after every 3-4 hrs	0
5.	Breast feeding frequency	Feeding 0-2 times/ day	3
		Feeding 3-5 times/day	2
		Feeding 6-8 times/day	1
		Feeding 9-12 times/day	0
6.	Breast engorgement	<i>Prakrut</i> - No engorgement	0
		<i>Alpa</i> - Slight engorgement	1
		<i>Madhyam</i> - Moderate engorgement, no <i>Vednahara Aushadhi</i> required	2
		<i>Adhik</i> - Severe pain <i>Vedanahar Aushadhi</i> required	3

Data Extraction and Analysis: The data obtained was recorded, tabulated and statistically analyzed using appropriate statistical methods.

Results

Table 2: Demographic data

Age	18-23yrs	4
	24-29yrs	2
	30-35yrs	4
Primi/multi	Primi gravida	4
	Multi gravida	6
Education	Educated	6
	Uneducated	4
Occupation	Housewives	6
	In service	3
	Labourer	1
Economic background	Lower	2
	Middle	5
	High	3
Religion	Hindus	6
	Muslims	3
	Christians	1
Diet	Veg	4
	Mixed	6

Subjective Parameters

- 1. Stanamlanata:** The initial mean of *stanamlanata* was 3 and reduced to 1.23 at the end of 30th day which showed statistically significant results with p <0.001.
- 2. Stanya/Milk ejection:** The initial mean of the *Stanya*/milk ejection was 2.76 and was reduced to 1 at the end of 30th day which showed statistically significant results with p <0.001.
- 3. Weight of the Baby:** The initial mean of weight of the baby was 2.76 and was reduced to 1 at the end of 30th day which showed statistically significant results with p <0.001.
- 4. Breast feeding:** The initial mean of breast feeding was 2.76 and was reduced to 1 at the end of 30th day which showed statistically significant results with p <0.001.
- 5. Breast engorgement:** The initial mean of the breast engorgement was 2 and this was reduced to 1.07 at the end of 30th day which showed statistically significant results at p <0.001.

Table 3: Results Before and After Treatment

Sl. No.	Parameters	Mean Score		% Improvement	SD	SE	T	P
		BT	AT					
1	<i>Stanamlanata</i>	3	1.23	58.97	0.429	0.084	20.99	<0.001
2	<i>Stanya</i> Ejection	2.76	1	63.88	0.429	0.084	20.99	<0.001
3	Breast Feeding	2.76	1	63.88	0.429	0.084	20.99	<0.001
4	Weight of the Baby	2.76	1	63.88	0.429	0.084	20.99	<0.001
5	Breast Engorgement	2	1.07	46.15	0.39	0.076	12	<0.001

Follow up Results: The follow up was done on the 20th day after the completion of treatment in which the premean of *Stanamlanata* which was 3 got reduced to 0.96 with statistically significant results ($p < 0.001$) on the 20th day after the completion of treatment. The pre mean of *Stanya*/milk ejection was 2.9 and was reduced to 0.57 with statistically significant results ($p < 0.001$). Breast feeding got reduced from 2.9 to 1 with $p < 0.001$, Weight of the baby with the premean 2.92 got reduced to 0.57 with $p < 0.001$ and the breast engorgement with pre mean of 1.92 was reduced to 0.96 with $p < 0.001$ on the 20th day after the completion of treatment.

DISCUSSION

According to Charaka, the excellent milk has normal colour, smell, taste and touch. Dissolves completely in water if milk in a water pot because of its (watery) nature. Such milk is nourishing and health giving. Thus, is the excellence of breast milk^[6]. Whereas as per Sushruta, the breast-milk, which put in water becomes one with it, is pale, sweet and free from abnormal colour, and should be known as normal^[7]. Kashyapa without mentioning any physical characters says that the pure milk is that which provides unobstructed, easy and good growth of strength, different body parts, longevity as well as good health too the child and does not cause any pain or trouble to the child and wet-nurse^[8].

Not all the properties of breast milk are understood, but its nutrient content is relatively stable. Breast milk is made from nutrients in the mother's blood stream and bodily stores. Breast milk has just the right amount of fat, sugar, water, and protein that is needed for a baby's growth and development^[9]. Because breastfeeding uses an average of 500 calories a day it helps the mother lose weight after giving birth^[10]. In the present study, among the 10 patients included for the study, 4 patients were in the age group of 18-23yrs, 2 patients aged between 24-29yrs and 4 patients were in the age group of 30-35yrs, 4 patients were primi and 6 multi gravid females, 6 patients were educated and 4 were uneducated, among them, 6 patients were housewives, 3 were in service and 1 was a la-

bourer. 5 of them fall under middle economic background, 3 high and 2 lower economic backgrounds. 7 patients were from urban and 3 were from rural area. 6 patients were Hindus, 1 Christian and 3 Muslims. 4 patients were vegetarians and 6 were of mixed diet. With pre and post-test design single pilot study conducted on 10 patients with complaints of stanyakshaya during puerperal period, patients were given *Karpasabeeja Churna* of 6gms was administered with luke warm water twice a day after food for 30 days with instructions of *Pathya Ahara* and *vihara* to be followed. All the selected patients were thoroughly examined, diagnosed and included for the study based on the inclusion and exclusion criteria. As this was a pre-post design, after treatment results showed that the pre mean of *Stanamlanata* which was 3, reduced to 1.23 at the end of 30th day with statistically significant results $p < 0.001$. Pre mean of *Stanya* /milk ejection reduced from 2.76 to 1 with statistically significant results with $p < 0.001$. Breast feeding reduced from 2.76 to 1 with $p < 0.001$. Weight of the Baby came down from 2.76 to 1 with $p < 0.001$ and breast engorgement showed statistically significant results with pre mean reduced from 2 to 1.07 the end of 30th day with $p < 0.001$. *Karpasabeeja Churna* explained by Yogarathnakara has been used for the present study as the drug is known to inherently possess the *Stanya Janana* Property. Apart from the classical reference of the drug possessing *Stanyajanana Karma*, the *Samanayata* between the drug and the *Stanya* is established based on the similarities the above two share *Apya Dravya*, *Madhura Rasa*, *Shita*, *Snigdha*, *Pichhila Guna* with *Santarpana* and *Balya* properties. The objective of the study was to assess the *Stanya Janana* action of the drug *Karpasabeeja* based on the principle of *Samanya Siddhanta*. Here the drug *Karpasabeeja* is taken as *Karana* and the *Stanya Vriddhi* as the *Karya*. As the *Vriddhi* of the *Karya* is intended in this study, the *Samanya Siddhanta* is applied in relation to the *Karya* i.e., *Samanya* causes *Vriddhi*, thus the *Vriddhi* of *Stanya* is ascertained under the domains of *Dravya*, *Guna* and *Karma*. Acharya Charaka illustrates the fifty *Mahakashaya* i.e., 50 important varieties of decoctions. Each *Kashaya Varga* consists of 10

drugs each. The ten drugs termed as *Dashemani* are grouped as they are oriented to a particular target action either leading to an increase or its palliation. Based on the *Samanya* principle of Ayurveda, increase is caused by the use of similar substances. Thus, one such drug from a desired group is chosen to study the principle of *Samanya* through a clinical interventional study. The *Kashaya Varga* chosen for the present study is the *Stanyajanana Kashaya Varga* and the drug chosen is *Karpasabeeja Chourna* as the *Samanya* is applied with regard to its three bhava or domains namely *Dravya Samanya*, *Guna Samanya* and *Karma Samanya*, in which the present study also includes the study of the *Samanya* under the above 3 domains.

Mode of Action: The probable mode of action is discussed in relation to its effect on the three domains,

Dravya This domain constitutes the quantitative increase of the *Stanya*. The increase in *Stanya* is attributed to the increase of the *rasa dhatu* which consequently leads to the increase of *Stanya* which is the *Upadhātu* of the *rasa dhatu*. Considering the *Panchaboutika* composition of the two, the drug is said to grow only in marshy lands by which it can be substantiated that it is an *Apya Dravya*. On the other hand, the *Stanya* is also an *Apya Amsha* that is produced in the body. Thus, on the grounds of pharmacodynamics, both the drug and the *Stanya* can be considered as *Apya Dravya* and hence the cause for its increase is attributed to the similarity in the *Panchabautika* composition between the two. *Sapta Dhatu Poshaka property of the drug:* As the *rasa* does the *Poshana* of all the other dhatus there by this fact reveals the direct increase on the *rasa dhatu* and thereby *Stanya* as the latter is *Upa Dhatu* of the former. *Ruchya property of the drug:* this leads to adequate consumption of the *Ahara*. This in turn results in the adequate production of the *rasa* thus contributing in the formation of *Stanya*. **Guna** This domain constitutes the qualitative improvement of the *Stanya*. On the grounds of pharmacodynamics, this is affected by the similar properties of the drug with that of the *Stanya* like *Madhura Rasa*, *Snigdha*, *Picchila Guna*, *Sheeta Virya*. In addition, the *Vatahara* property of the drug has caused the disap-

pearances of the *vata vriddhi lakshanas* like floating in water. In addition to the above-mentioned qualities, the properties like *Santarpana*, *Balya* of the drug may also have affected the corresponding components of the breast milk and thereby causing a significant change especially in the solid not fat constituent of the breast milk. The SNF consists of proteins, lactose and other micronutrients. They perform a variety of functions in living organisms ranging from providing structure to reproduction. Thus, from this explanation a relation can be drawn between the properties of the protein constituents of the breast milk and those with that of the drug like *Dhatu Vardhana*, *Balya*. The relation can also be drawn between the protein content and the breast milk proper. The breast milk is said to possess qualities like *Shareera Upachaya*, *Balya*, *Ayushya*, *Dhatu Vardhana*, *Jeevana* and *Shishu Anapattihi*. As discussed, these properties seem to correspond with the properties of the proteins as well. Hence an overall improvement in the quality of the milk can also be appreciated for its role in increasing the SNF concentration. **Karma** This domain constitutes the improvement in the activities of the infant as a consequence of qualitative improvement in the *Stanya*. This can be attributed to the quantitative increase in the breast feeds and there by the *Stanya* leading to the *Apyayana* or nourishment in the infant there by leading to an increased weight. The adequacy achieved in the breast feeding is thus consequently able to improve the frequency of the urine and the stool output of the infant suggesting an adequate intake influencing on the adequacy in the elimination pattern. On the other hand, the qualitative improvement in the breast milk with regards to the *Upa Snehana* property along with the *Snigdha* and *Picchila Guna* may have a role in leading to easy and regular evacuation of the stools. The *Upakleda* property on the other hand may play a role in frequency of the urine output. The *Nidrakara* property may play a role in increasing the duration of sleep.

CONCLUSION

Karpasabeeja Churna Showed statistically significant results in the *Stanamlanata*, *Stana*/milk ejection, breast feeding, weight of the baby and breast engorgement with $p < 0.001$. Thus, *Karpasabeeja Choor-na* showed to be effective in increasing the *Stanya* and it is a *Stanyajanaka Dravya*.

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