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Review Article

Post Partum Lactation

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Herbal Galactogogues for Post Partum Lactation: A Review

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Breast-feeding is essential for newborns and infants, providing optimal nutrition along with immune support and a host of lifelong health benefits to mother and child. But currently many lactating mothers are presently unable to adequately nourish their newborns due to deficient support from their health. And experiences many challenges associated with milk production including insufficient milk supply (Stanya Kshya) prompting them to explore different methods to improve lactation such as herbal galactogogues. Herbal galactagogues are natural substances that help in stimulate, maintain or augment breast milk production in lactating women e.g. fenugreek (Trigonella foenum-graecum), Garlic (Allium sativum), Shatavari (Asparagus racemosus), Cumin (Cuminum cyminum) Moringa (Moringa oleifera) etc. have been traditionally used to promote lactation. Their mechanisms of action are believed to involve stimulation of prolactin secretion, increased mammary gland development, and enhanced milk ejection reflex. Some herbs, like Fenugreek and Shatavari, contain phytoestrogens, which may contribute to their lactogenic effects by modulating hormonal pathways. Despite widespread traditional use, scientific evidence on the efficacy and safety of herbal galactagogues remains limited and inconsistent. Some clinical studies suggest positive effects, such as increased milk volume and improved infant weight gain, while others show no significant benefit compared to placebo. Also, Acharya Charaka explained two categories to summarize the treatment protocol related to Stanya disorders. These include Stanya Shodhan (purifiers) and Stanya Janana (galactogogues) Gana. (Cha Sa Sutra Sthana 4/12). By merging traditional wisdom with contemporary scientific approaches, the therapeutic use of herbal galactagogues can be enhanced, leading to better lactation results and supporting successful breastfeeding.

Keywords: Breast milk, Fenugreek, Herbal galactagogues, Lactation, Stanya Janana, Stanya Shodhan

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Introduction

Breastfeeding has long-term benefits for both mother and infants. For example, women who breast feed have a lower risk of breast and reproductive cancer, and their children have increased adult intelligence independent of a wide range of possible confounding factors (Jong, 2012; Kramer, 2008). Breast feeding is associated with decreased postpartum weight retention (Baker, 2008). In addition, rates of sudden-infant-death syndrome are significantly lower among breast-fed infants. Last, in the Nurses' Health Study, women who reported breast feeding for at least 2 cumulative years had a 23-percent lower risk of coronary heart disease (Stuebe, 2009). For all these reasons, the American Academy of Pediatrics (2012) supports the World Health Organization (2011) recommendations of exclusive breast feeding for up to 6 months, with avoidance of exposure to cow milk proteins. The first milk (colostrum) is rich in immunological components and contains more minerals and amino acids (Ballard, 2013). It also has more protein, much of which is globulin, but less sugar and fat. Secretion persists for 5 days to 2 weeks, with gradual conversion to mature milk by 4 to 6 weeks. The colostrum content of immunoglobulin A (IgA) offers the newborn protection against enteric pathogens. Other host resistance factors found in colostrum and milk include complement, macrophages, lymphocytes, lactoferrin, lactoperoxidase, and lysozymes. Human milk contains several protective immunological substances, including secretory IgA and growth factors. The anti-bodies in human milk are specifically directed against maternal environmental antigens such as against Escherichia coli (Iyengar, 2012). As a result, breast-fed infants are less prone to enteric infections than bottle-fed ones (Cravioto, 1991). Human milk also provides protection against rotavirus infections, a major cause of infant gastroenteritis (Newburg, 1998). Moreover, the risks of atopic dermatitis and respiratory infections are reduced (Ip, 2009). Bartick and Reinhold (2010) calculated that significant economic burdens from pediatric disease could be lessened by improved breast-feeding rates.**[1]** The Third National Family Health Survey (NFHS-3) of India reported that overall 21.5% of children aged under three years were breastfed within one hour of birth, 48.3% of the children aged zero to five months were exclusively breastfed, And 53.8% of the children aged six to nine months received solid or semi-solid food and breast milk.**[2]**

In *Ayurveda* classics, *Stanya* (Breast Milk) is considered the primary source of nourishment for newborns. According to the *Ayurveda* classics, *Stanya* is regarded as *Upadhatu* (the minor structural components that stabilize and sustain the body) of *Rasa Dhatu.* After proper digestion of *Ahara* (food) by *Jatharagni* and *Dhatvaagni*, *Rasa* is formed. The *Prasada Bhaga* (sweet essence part) of this *Rasa* is circulated by *Vyana Vayu* through the whole body gets collected in the breasts and is named as *Stanya*.**[3]** The preparation for lactation starts during pregnancy. The *Ahara* (diet) consumed by *Garbhini* (pregnant woman) is utilized for three main functions: *Swasharirposhana* (nourishment of woman's own body), *Stanya* (milk) formation and *Garbhaposhana* (fetal nourishment).**[4]** Thought, Sight, touch of child and also with physical contact of baby (Suckling) stimulates and maintains lactation.**[5]** But currently many mothers are presently unable to adequately nourish their newborns due to deficient support from their health. Delayed childbearing, high rates of cesarean section, stressful labor lasting >1 hour, and obesity can create physiological barriers to the establishment of lactation. The factors contributing to low milk production may be often associated to mammary hypoplasia and administration of analgesics during labor, as well as a family history of alcohol dependence and obesity may impede the prolactin response required for milk production immediately postpartum When the onset of milk production is delayed, breast-feeding is more likely to be halted early, and newborns are at greater risk of excess neonatal weight loss, prompting supplementation with infant formula. Women with insufficient milk production who do not respond to lactation counseling, as well as adoptive parents seeking to induce lactation, may pursue therapy with herbal galactagogues. Drugs like domperidone or metoclopramide carry the risk of adverse side effects such as arrhythmia or hypothyroidism in mother-children dyad.**[6]** That is why herbal galactologues i.e; natural substances that help in stimulate, maintain or augment breast milk production in lactating women e.g. *Shatavari,* Feugreek, Moringa, Garlic extract, Cumin etc. are becoming more and more popular for increasing lactation. Among these herbal compounds, fenugreek probably is the most widely consumed.

Ayurvedic classical texts provide extensive references for herbal galactogogues (*Stanya Janana Dravyas*) and their role in promoting lactation.

The MAA (Mothers' Absolute Affection) Program is a government initiative in India launched by the Ministry of Health and Family Welfare in the year of 2016. It aims to promote breastfeeding awareness and improve breastfeeding rates across the country. This article explores the robust review of herbal galactogogues, their mechanism and their role in supporting lactation naturally and safely. Through an evidence based prospective, this article aims to bridge traditional knowledge with modern understanding offering valuable insight into the role of herbal galactogogues in postpartum lactation.

Methodology

An in depth review of various classical texts of Ayurveda has been done & comprehensive literature search was performed using keywords 'Breast milk, Feugreek, Herbal galactagogues, Lactation, *Stanya Janana, Stanya Shodhan* in PubMed, Scopus, Google Scholar, Science Direct and Web of Science for published literature and required data was obtained. General searches in Google were performed to assess extent of general information on topic.

Description of Herbal Galactogogues in Ayurveda Classical Literature:

In *Ayurveda,* galactagogues (substances that promote lactation) are known as *Stanyajanana Dravyas*. These herbs are used to enhance breast milk production and improve its quality by nourishing *Rasa Dhatu* (the primary nutrient plasma), balancing *Doshas* because *Stanya* is regarded as *Upadhatu* (the minor structural components that stabilize and sustain the body) of *Rasa Dhatu. Ayurveda* attributes *Rasa* (taste), *Guna* (qualities), *Virya* (potency), *Vipaka* (post-digestive effect), and *Prabhava* (specific action) as the factors responsible for their efficacy.

Table 1: List of most common used *Stanyajanana Dravya* with classical references:

Dravya(Herb)	Botanical name	Rasa(Taste)	Guna(Qualities)	Veerya(Potency)	Vipaka(post Digestive effect)	Karma(Action)	Dosha Effect	Classical Reference
Shatavari[7]	Asparagus racemosus	Madhura, Tikta	Guru Snigdha	Sheeta	Madhura	Stanyajanana, Rasayana, Balya	↓V ↓P K	Ch.Sa.Chi 4/15
Methi [8]	Trigonella Foenum-graecum	Tikta Kashaya	Laghu Snigdha	Ushna	Katu	Stanyavardhaka, Deepana, Pachana	↓V ↓K P	Su.Sa.Chi 10/14
Shigru[9]	Moringa oleifera	Katu Tikta	Laghu Rooksha	Ushna	Katu	Stanyajanana, Deepana, Lekhana	↓K ↓V ↑P	Cha.Sa.Su 4/15
Lehsun[10]	Allium sativum	Katu Tikta	Laghu Snigdha Tikshna	Ushna	Katu	Stanyajanana Medhya,Rasayana	↓V ↓K ↑P	B.Ni Haritakyadi Varga
Fennel Sauf [11]	Foeniculum vulgare	Madhura Tikta	Laghu Snigdha	Ushna	Madhura	Stanyavardhaka, Deepana, Pachana	↓V ↓P ↑K	Ch.Sa.Chi. 4/15
Cumin Jeera[12]	Cuminum cyminum	Tikta Katu	Laghu Rooksha	Ushna	Katu	Stanyajanana, Deepana, Pachana	↓V ↓K ↑P	Ch.Sa.Chi. 4/15

Mechanism of Action of *Stanyajanana Dravya* in increasing lactation:

Shatavari: *Madhura Rasa* & *Snigdha Guna* nourish *Rasa Dhatu*, *Sheeta Virya* cools excess *Pitta*, preventing milk depletion, enhances *Ojas,* boosting hormonal balance for lactation.

Methi: *Ushna Virya* stimulates *Agni,* improving nutrient absorption, *Laghu* & *Snigdha Guna* ensures smooth digestion and lactation, removes *Ama*, ensuring unblocked milk flow.

***Shigru*:** *Ushna Virya* clears *Srotas* (milk ducts) for smooth flow*, Tikta Rasa* detoxifies the system, preventing milk stagnation, Rich in vitamins and minerals supporting milk enrichment.

Lehsun: *Ushna Virya* enhances circulation, improving *Stanya* flow, *Katu Rasa* detoxifies and prevents milk blockage, increases warmth in the body, improving digestion for better lactation.

Fennel: *Madhura Rasa* & *Snigdha Guna* soothe the digestive system, *Ushna Virya* enhances circulation,

Improving *Stanya* flow, reduces bloating & colic in infants via breast milk.

Cumin: *Ushna Virya* enhances *Agni*, ensuring proper nutrient absorption, *Katu Rasa* clears *Stanya Vaha Srotas*, ensuring unobstructed flow, reduces *Vata* imbalance, preventing lactation deficiency.

Table 2: Phytochemical & Nutritional composition of Herbal galactogogues.

Herb	Phytochemical composition	Nutritional composition
Shatavari[13]	Saponins, Polyphenols, Flavonoids, Phytosterol	Macro minerals: Ca, Mg, K & Fe Micro minerals: Cu, Zn, Mn, Co, Cr Protein, Carbohydrates
Fenugreek[14]	Saponins, Phtoestrogen	VitA, B1, C, Folic acid Minerals: Mg, Ca, Iron, Proteins (Lysin & Tryptophan)
Garlic[15]	Sulphur compounds such as Allicin, Allin, Allyl propyl sulphide	VitA, B, C, Niacin Minerals: Ca, Phosphorus, Iron Carbohydrates
Moringa[16]	Saponins, glycoside, quercetin, $sitosterol, $ sitostenone	Vit. A, B,C, E Iron, Ca, K Protien,
Cumin[17]	Alkaloids, anthraquinones, coumarins, glycosides, flavonoids, saponins, resins, tannins, Cuminaldehyde, Terpenes.	Vit A, B (thiamin, niacin, vitamin B6, riboflavin) C, E Minerals, Fats
Fennel [18]	phenols, alkaloids, terpenoids, flavonoid(quercetin) glycosides, tannins, saponins &	thiamine, riboflavin, niacin, and vitamin Ca, K iron, phosphorus, Protein, Fiber

Table 3: Previous In Vivo Studies on Herbal galactogogues.

Study	Animal Model/subjects	Dosage & Form	Effect on milk production	Effect on blood parameter
Sevrin et al 2019[19]	Lactating Rats	Fenugreek Supplementation 1g.kg-1.day-1	16% increase in milk yield (only in increased litter size)	No adverse metabolic effects; possible insulin sensitivity improvement
Meena et al 2020[20]	Lactating buffaloes	50gm Shatavari Powder/day/animal	7.3kg/day (19.67% increased)	No adverse effects reported
Olvera-Aguirre et al; 2020[21]	Lactating ewes	20, 40 or 60ml MOE/day for 45 days	No significant effect on milk yield or composition	No negative effects on ewe
Khurana et al; 2023 [22]	Irish Holstein-Friesian Cows (late lactation	33g/cow/day of garlic and citrus extract (GCE)	Increased dry matter intake (DMI) by 15.3% (15.0 vs.17.3 kg/d), Energy corrected milk yield by 33.5% (15.5 vs.20.7 kg/d), and feed efficiency by 17.8% (1.01 vs 1.19)	Not reported
Awwad AN et al 2020[23]	Domestic Black goats	10gm/d(T2), 20g/d (T3) cumin seeds	Significant increase in milk yield (P≤0.05) in T3 (20 g/day) compared to control	Not reported
Rifqiyati & Wahyuni, 2019[24]	12 Female Rats	Fennel leaves infusion Treatment1 (P1)-20gm/300ml P2- 40gm/300ml P3 – 60gm/300ml for 15 days	Significant increased milk production (larger lactiferous ducts, more active alveoli) with higher dose.	No significant side effects on kidney functions

Mode of Action of each herb: Sevrin et al; study suggests fenugreek may act as a galactagogue (a substance that promotes milk production) only when there are no physiological barriers to lactation. However, fenugreek had no effect when lactation was challenged due to maternal protein restriction.

Meena et al study suggests *Shatavari* supplementation improved milk yield, fat percentage, and reproductive performance without negative blood parameter effects.

Olvera-Aguirre et al; 2020: Moringa oleifera leaf extract enhances milk yield and pre weaning performance in ewes through multiple mechanisms. Rich in proteins, amino acids, vitamins, & minerals, it supports mammary gland function & milk synthesis. Bioactive compounds like flavonoids & phytoestrogens stimulate prolactin secretion, while antioxidants such as quercetin & chlorogenic acid reduce oxidative stress, improving milk secretion and quality. Additionally, Moringa enhances rumen fermentation, leading to better nutrient absorption & utilization. Phytoestrogens may promote mammary gland devel. by interacting with estrogen receptors. Studies indicate that supplementation with Moringa at different doses (20, 40, 60 mL/ewe/day) does not negatively affect ewe health, milk composition, or lamb growth, suggesting it is safe & effective dietary addition for lactating ewes.

Khurana et al; The garlic and citrus extract (GCE) supplement influences milk production and environmental sustainability in dairy cows through several mechanisms: By improving Rumen Fermentation (Garlic contains bioactive compounds like allicin, which have antimicrobial properties that modulate rumen microbial populations). By Increasing dry Matter Intake (DMI) (GCE supplementation stimulates appetite, leading to increased feed intake). And by enhanced Energy Utilization & Milk Production (Higher energy-corrected milk (ECM) yield is linked to better rumen energy metabolism due to reduced methane losses and improved microbial protein synthesis).

Cumin (Cuminum cyminum) enhances lactation through multiple mechanisms, including improved nutrient digestion and absorption due to its bioactive compounds like cumin aldehyde & thymol, which stimulate digestive enzymes & increase dry matter intake. It positively influences rumen fermentation by promoting beneficial microbes & increasing volatile fatty acid (VFA) production, essential for milk synthesis. Cumin's phytoestrogenic properties may enhance prolactin secretion, supporting milk production. Additionally, its antioxidant & anti-inflammatory effects reduce oxidative stress in mammary tissues, improving milk quality. Cumin also regulates glucose metabolism & lipid mobilization, ensuring efficient energy utiliza. for sustained lactation performance. According to Rifqiyati & Wahyuni protein of fennel leaves can be increased milk secretion.

Neville (1998) said that Increasing the supply of food protein will be increased levels of amino acids in the blood which help the activity of lactogenesis. Lactogenesis happened on alveolus of mammary gland. Fennel leaves have 22,60 % protein and 208,06 Cal/g (Rifqiyati 2014). Lactogagum of fennel acts as estrogen. The use of high-dose fennel seeds in a few days can increase milk production and improve the digestion of mothers and babies. administration of fennel seeds in doses that are too high for a long time can be decreased milk production because it provided a negative feedback for prolactin mechanism. The mechanism of stimulation of hormone is also the basis for increasing milk production. The hormone estrogen will stimulate the growth of lactiferous ducts and milk gland alveoli.

Different *Ayurvedic* formulations used in increasing Lactation**[25]**

- Milk treated with *Vajikarana*
- Decoction of roots of *Virana, Sastika, Sali, Ikshuvalika, Darha, Kusa, Kasa, Gundra, Itkata* &
- Use of *Ghrita* & Oil.
- Milk treated with *Maricha* & *Pippalimoola*
- Powder or juice of *Vidarikanda* mixed with milk.
- Powdered *Kana* with Lukewarm milk.
- *Shatavari* pestled with milk.

Table 4: Previous research work on Insufficient Lactation (*Stanya Kshaya*).

Study	Design & sample size	Intervention	Key Findings
Role of Karpasabeeja Churna in the treatment of Stanya Kshaya[26]	Pilot study Sample size-10 lactating mothers (18-35 Years)	Karpasabeeja Churna-6gm with lukewarm water twice daily for 30 days	Significant improvement in milk ejection, breast engorgement, infants weight gain (P<0.001)
Haridradi Gana Kwath in the management of Stanya Kshaya[27]	Clinical Study Sample size 30 lactating mothers	Haridradi Gana Kwath 48ml twice daily after food for 30 days	Statistically significant improvemet in Lactation parameters; correction of Agni & Vata Dosha noted.
Chandrashoor Payas (Garden cress seed porridge) as Dietary supplement.[28]	Randomized controlled trial; sample size -60 lactating mothers	GroupA Chandrashoor Payasa 1000ml daily Group B: Shatavari Churna 5gm with 100ml milk for 45 days	Both interventions significantly improved p< 0.001 milk production & infant weight gain.
Yashtimadhu Churna & Shatavari Churna in Stanya Kshaya (Lactation Failure)[29]	A Randomized Comparative Clinical study Sample Size- 40	Group A- Yashtimadhu Churna 3gm BF Group B- Shatavari Churna 3gm BF for 30 days	GroupA: 18 (90%) patients got relief in Stana Mlanta, Milk Ejection Breast feeding, Body weight. 20 (100%) patients got relief in Sleep of baby, urine frequency. 17(85%) patients got relief in Cry for demand feed. GroupB: 20 (100%) patients gots relief in Stana Mlanta, Milk ejection, Body weight, Sleep of Baby, Urine frequency. 19 (95%) patients got relief in Breast Feeding and Cry for demand.

Study	Design & sample size	Intervention	Key Findings
Shrungatak Churna & Vidarikand Churna in the management of Stanyakshaya[30]	Randomized Clinical trial Sample Size: 60 lactating mothers	Group A: Shrungatak Churna- 5gm twice a day with cow milk Group B Vidarikand Churna 5gm twice a day with cow milk for 45 days	Both group shows Significant improvement in lactation parameters.

Table 5: Clinical Studies of Herbal galactogogues in Lactation:

Study	Participant	Dose & Form / Intervention	Outcome measured
Turkyilmaz et al; 2011[31]	66 mother- infants pairs randomly assigned to 3 groups	Group1: Herbal Tea 200 mL, 3 times daily. Group 2: Placeo Group 3: Control	Maximum weight loss was significantly lower in infants in Group 1 compared to both the placebo and control groups ($p < 0.05$) Infants in Group 1 regained their birth weight earlier than placebo and control groups ($p<0.05$). The mean pumped breast milk volume of the mothers who received galactagogue tea was significantly higher than that of the placebo and control groups ($p < 0.05$) There were no maternal or adverse effects of herbal tea reported by mothers.
Birla et al. 2022[32]	78 postpartum women(>37 weeks gestation)	Shatavari Bar® (Shatavari and oats) vs Placebo	significantly higher average total milk output of 64.74 ml compared to the placebo group, which had an average output of 49.69 ml ($p=0.008$)
Ravi et al. 2020[33]	66 postnatal mothers (30 in experimental group, 30 in control group)	7.5gm of fenugreek soaked overnight; fenugreek water administered once daily in the morning for 7 days to experimental group.	Improved signs of breast milk sufficiency, higher frequency of urination and greater weight gain in infants of experimental group compared to control.
Sinha K 2022[34]	60 postnatal mothers (30 in experimental group, 30 in control group)	100 ml of garlic with milk once a day for 7 days to experimental group.	After the intervention, 66.6 percent of post-natal mothers had adequate secretion, 33.3% had moderate milk secretions and 0% has inadequate milk secretions. Hence garlic with milk was effective in improving the adequacy of Breast milk secretion among post-natal mothers.
Zakaria1a R et al[35]	60 breastfeeding mothers	15gm black cumin 200ml boiling water(1000C) to intervention group	Significant difference in milk volume (p 0.001)
Fungtammasan S et al[36]	88 postpartum women	900mg/day of Moringa oleifera leaves to study group	Breast milk volume: 73.5ml (Moringa Group) vs 50ml (Control); p 0.19 Milk volume difference: Moringa group had 47% more milk than control group. Exclusive breastfeeding rate at 6 months: 52.3% in Moringa group (met WHO goals)

Discussion

The postpartum period is critical for establishing successful breastfeeding, and insufficient lactation (*Stanya Kshaya)* remains a common concern that affects both maternal confidence and infant health. Herbal galactagogues have been traditionally used across various cultures to enhance breast milk production, and recent interest in these natural interventions has prompted scientific evaluation of their efficacy.

Several herbs commonly believed to increase lactation include *Shatavari,* Feugreek, Moringa, Garlic extract, Cumin, Fennel, etc. Many of these herbal medicines, in particular fenugreek, have gained popularity in the Western world as galactagogues. Studies on herbal galactagogues show mixed results, with some suggesting a positive impact on milk volume and infant weight gain, while others indicate no significant difference compared to placebo.

A 2018 study on fenugreek found that lactating mothers who consumed fenugreek tea showed a significant increase in milk volume compared to those in the control group (Turkyılmaz et al., 2018). Similarly, Birla et al. (2022) demonstrated that postpartum women who consumed Shavari Bar®-a formulation containing Shatavari-showed significantly increased milk volume compared to those who received a placebo.

Herbal galactogogues are believed to work through various mechanisms, including:

Phytoestrogenic Effects: Some herbs, such as *Shatavari* and fenugreek, contain phytoestrogens, plant compounds that mimic estrogen and may influence milk production by stimulating prolactin release.

Nutritional Support: Herbal galactogogues are rich in Vitamins, Minerals, calcium and protein, antioxidants, and bioactive compounds that may enhance maternal health and, consequently, milk production.

Digestive and Metabolic Support (*Agni Deepana* and *Vata Shamana*): Herbs such as Garlic (*Lashuna*) and Cumin *(Jeeraka*) improve digestion and metabolism (*Agni Deepana*), which supports better nutrient assimilation. Improved digestion enhances *Ojas* (vital energy) and *Rasa Dhatu* (nutritive fluid), believed to be precursors to breast milk (*Stanya*).

Present study reviews the relevant literature, identified a need for scientific evaluation of the commonly used herbal galactagogues validated by numerous clinical studies. In this review a robust approach has been made to comprise all scientific studies published online as well as offline to present a complete overview of herbal galactogogues.

Conclusion

Herbal galactagogues such as *Shatavari*, Fenugreek, Moringa, *Yashtimadhu*, *Vidarikanda* and others have shown promising potential in improving lactation for postpartum women, serving as a beneficial complement or substitute to traditional treatments. Emerging clinical studies shows that these herbal galactogogues may enhance milk production, improve maternal health & contribute to better neonatal outcomes. Despite traditional and growing clinical use of herbal galactagogues, robust scientific evidence supporting their efficacy is still lacking. Many existing studies are limited by small sample populations, unstandardized dosing regimens, inconsistent outcome measures, & insufficient data on long-term safety. Future research should aim to standardize herbal formulations, clarify their mechanisms of action, & investigate potential synergistic interactions. Additional investigation into safety and efficacy of herbal galactagogues, including clinical trials & case reports, are urgently required to provide research-based evidence to inform health professionals & breastfeeding women. By merging traditional wisdom with contemporary scientific approaches, further clinical trials are necessary to establish their efficacy, optimal dosage, safety & long term outcomes in lactating mothers leading to better lactation results & supporting successful breastfeeding.

References

1. Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, et al. Williams Obstetrics. 24th ed. New York: McGraw-Hill Education; 2018. *[Crossref][PubMed][Google Scholar]*

2. Mahmood SE, Srivastava A, Shrotriya VP, Mishra P. Infant feeding practices in the rural population of north India. J Fam Community Med. 2012;19(2):130–5. *doi:10.4103/2230-8229.98305. PMID: 22870418; PMCID: PMC3410177 [Crossref] [PubMed][Google Scholar]*

3. Sushruta. Sushruta Samhita. Shastri AD, editor. Nidana Sthana, 10/18. *1st ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2009 [Crossref] [PubMed][Google Scholar]*

4. Agnivesha. Charaka Samhita. Shastri S, editor. Vidyotini Hindi Commentary by Shastri K. *Sharira Sthana, 6/23. Varanasi: Chaukhamba Sanskrit Sansthan; 2009 [Crossref][PubMed][Google Scholar]*

5. Sushruta. Sushruta Samhita. Shastri AD, editor. Sharira Sthana, 10/21–23. *1st ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2009 [Crossref] [PubMed][Google Scholar]*

6. Bazzano AN, Hofer R, Thibeau S, Gillispie V, Jacobs M, Theall KP. A review of herbal and pharmaceutical galactagogues for breast-feeding. Ochsner J. 2016;16(4):511–24. *[Crossref][PubMed] [Google Scholar]*

7. Agnivesha. Charaka Samhita. Revised by Charaka and Dridhabala. Chikitsa Sthana, 4/15. *Varanasi: Chaukhamba Surbharati Prakashan; 2016 [Crossref] [PubMed][Google Scholar]*

8. Sushruta. Sushruta Samhita. Edited by Dalhanacharya. Chikitsa Sthana, 10/14. *Varanasi: Chaukhamba Sanskrit Sansthan; 2014 [Crossref] [PubMed][Google Scholar]*

9. Agnivesha. Charaka Samhita. Revised by Charaka and Dridhabala. Chikitsa Sthana, 4/15. *Varanasi: Chaukhamba Surbharati Prakashan; 2016 [Crossref] [PubMed][Google Scholar]*

10. Bhavamishra. Bhavaprakasha Nighantu. Haritakyadi Varga. Varanasi: Chaukhamba Sanskrit Bhawan; 2010. *[Crossref][PubMed][Google Scholar]*

11. Agnivesha. Charaka Samhita. Revised by Charaka and Dridhabala. Chikitsa Sthana, 4/15. *Varanasi: Chaukhamba Surbharati Prakashan; 2016 [Crossref][PubMed][Google Scholar]*

12. Agnivesha. Charaka Samhita. Revised by Charaka and Dridhabala. Chikitsa Sthana, 4/15. *Varanasi: Chaukhamba Surbharati Prakashan; 2016 [Crossref][PubMed][Google Scholar]*

13. Patel VK, Joshi A, Kalma RP, Parmar SC, Damor SV, Chaudhary KR. Shatavari (Asparagus racemosus), Jivanti (Leptadenia reticulata) and Methi (Trigonella foenum-graecum): the herbal galactogogues for ruminants. J Livest Sci. 2016;7:231–7. *[Crossref][PubMed][Google Scholar]*

14. Patel VK, Joshi A, Kalma RP, Parmar SC, Damor SV, Chaudhary KR. Shatavari (Asparagus racemosus), Jivanti (Leptadenia reticulata) and Methi (Trigonella foenum-graecum): the herbal galactogogues for ruminants. J Livest Sci. 2016;7:231–7. *[Crossref][PubMed][Google Scholar]*

15. Shaik RB, Kumar DRS, Rao SR, Srinivasulu J. Critical analysis of Lasuna (role of Lasuna in different branches of Ayurveda). IOSR J Pharm Biol Sci. 2016;11(5):46–80. *doi:10.9790/3008-1105014680 [Crossref][PubMed][Google Scholar]*

16. Godinez-Oviedo A, Guemes-Vera N, Acevedo-Sandoval OA. Nutritional and phytochemical composition of Moringa oleifera Lam and its potential use as nutraceutical plant: a review. Pak J Nutr. 2016;15(4):397. *[Crossref][PubMed][Google Scholar]*

17. Nouri A, Mofasseri M, Jahani R, Ghodrati M, Emam SM, Ebadi MT. Phytochemical composition, hypnotic activity, and antinociceptive properties of cumin essential oil collected from various geographical regions. Food Sci Nutr. 2024;12(11):9025–34. *[Crossref][PubMed][Google Scholar]*

18. Noreen S, Tufail T, Badar Ul Ain H, Awuchi CG. Pharmacological, nutraceutical, functional and therapeutic properties of fennel (Foeniculum vulgare). Int J Food Prop. 2023;26(1):915–27. *[Crossref][PubMed][Google Scholar]*

19. Sevrin T, Alexandre-Gouabau MC, Castellano B, Aguesse A, Ouguerram K, Ngyuen P, Darmaun D, Boquien CY. Impact of Fenugreek on milk production in rodent models of lactation challenge. Nutrients. 2019;11(11):2571. *doi:10.3390/nu11112571. PMID: 31653107; PMCID: PMC6893785 [Crossref] [PubMed][Google Scholar]*

20. Meena GS, Bairwa RK, Mahajani K. Effect of supplement feeding of Shatavari on lactating buffaloes. J AgriSearch. 2020;7(3). *doi:10.21921/jas.v7i03.18696 [Crossref][PubMed] [Google Scholar]*

21. Olvera-Aguirre G, Mendoza-Taco MM, Arcos-Álvarez DN, Piñeiro-Vázquez AT, Moo-Huchin VM, Canul-Solís JR, et al. Effect of feeding lactating ewes with Moringa oleifera leaf extract on milk yield, milk composition, and preweaning performance of ewe/lamb pair. Animals. 2020;10(7):1117. *doi:10.3390/ani10071117 [Crossref][PubMed] [Google Scholar]*

22. Khurana R, Llonch P, Turner SP, Gibbs SJ, Chilibroste P, Hennessy D. Effect of a garlic and citrus extract supplement on milk production performance and carbon footprint of grazing dairy cows. J Dairy Sci. 2023. *Available from: [Article] [Crossref][PubMed][Google Scholar]*

23. Awwad AN, Shwayel MA. Effect of adding cumin seeds (Cuminum cyminum) to diet in milk production and its components of domestic black goat. Diyala Agric Sci J. 2020;12(Special):89–101. *doi:10.52951/dasj.20121009 [Crossref][PubMed] [Google Scholar]*

24. Rifqiyati N, Wahyuni A. Fennel (Foeniculum vulgare) leaf infusion effect on mammary gland activity and kidney function of lactating rats. Nusantara Bioscience. 2019;11(1):101–5. *[Crossref][PubMed][Google Scholar]*

25. Tiwari P. Ayurvediya Prasutitantra Evam Striroga. 2nd ed. Varanasi: Chaukhambha Orientalia; 2000. *p. 657 [Crossref][PubMed][Google Scholar]*

26. Kanojiya R, Shreves S, Bali MR. Role of Karpasabeeja Churna in the treatment of Stanyaksaya: a pilot study. Int Ayurvedic Med J. 2020 Sep. *doi:10.46607/iamj0208092020 [Crossref][PubMed][Google Scholar]*

27. Apila Nath MK, Sudhakar N, Byadagi S, Binu MB. Haridradi Gana Kwatha in the management of Stanya Kshaya w. s. r to hypogalactia: a clinical study. *Int J Ayu Pharm Res. 2020;8(Suppl 1). doi:10.47070/ijapr.v8iSuppl1.1643 [Crossref] [PubMed][Google Scholar]*

28. Kulkarni MS, Pise S. A randomized controlled clinical study of Chandrashoorapayas (garden cress seed porridge) as dietary supplement for lactating mothers. Int J Ayurveda Pharma Res. 2020;8(7):61–9. *doi:10.47070/ijapr.v8i7.1499 [Crossref][PubMed][Google Scholar]*

29. Mulla SA, Patil S, Bankapure S. Randomised comparative clinical trial to study the efficacy of Yastimadhu Churna and Shatavari Churna in Stanyakshaya (lactation failure). Int Ayurved Med J. 2024;12(1). *doi:10.46607/iamj112012024 [Crossref][PubMed][Google Scholar]*

30. Kamble S, Mane P, Dahake SJ, Atram S, Kamble A, Khade P. Comparative study of Shrungatak Churna and Vidarikand Churna in the management of Stanyakshaya. World J Pharm Res. 2017;6(9):1–10. *doi:10.20959/wjpr20179-9227 [Crossref] [PubMed][Google Scholar]*

31. Turkyılmaz C, Onal E, Hirfanoglu IM, Turan O, Koç E, Ergenekon E, et al. The effect of galactagogue herbal tea on breast milk production and short-term catch-up of birth weight in the first week of life. J Altern Complement Med. 2011;17(2):139–42. *doi:10.1089/acm.2010.0090. PMID: 21261516 [Crossref][PubMed][Google Scholar]*

32. Birla A, Satia M, Shah R, Pai A, Srivastava S, Langade D. Postpartum use of Shavari Bar® improves breast milk output: a double-blind, prospective, randomized, controlled clinical study. Cureus. 2022;14(7):e26831. *doi:10.7759/cureus.26831 [Crossref][PubMed] [Google Scholar]*

33. Ravi R, Joseph J. Effect of fenugreek on breast milk production and weight gain among infants in the first week of life. Clin Epidemiol Glob Health. 2020;8(3):656–60. *doi:10.1016/j.cegh.2019.12.012 [Crossref] [PubMed][Google Scholar]*

34. Sinha K. Effectiveness of garlic with milk on lactation among postnatal mothers at selected hospitals in Bhilai, Durg District. Nurs J India. 2022;113(2):83–7. *[Crossref][PubMed][Google Scholar]*

35. Zakaria R, Astuti SC. The effect of black cumin (Nigella sativa) on breastfeeding mothers. Jurnal Info Kesehatan. 2022;20(1):29–40. *[Crossref] [PubMed][Google Scholar]*

36. Fungtammasan S, Phupong V. The effect of Moringa oleifera capsule in increasing breast milk volume in early postpartum patients: a double-blind, randomized controlled trial. Eur J Obstet Gynecol Reprod Biol X. 2022;16:100171. *[Crossref] [PubMed][Google Scholar]*