



CRITICAL REVIEW ON ASHTANGA GHRITA.

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ABSTRACT

Ayurveda, the traditional system of medicine explains about four limbs of treatment, among which the drug is considered the second most important pillar. *Ashtanga Ghrita* is a unique preparation with eight ingredients *Vacha*, *Bakuchi*, *Manduka Parni*, *Shankapushpi*, *Shatavari*, *Brahma Soma*, *Amruta*, and *Brahmi*. Their pharmacodynamic properties such as *Rasa*, *Guna*, *Virya*, *Vipaka*, and *Prabhava* responsible for the *Medhya* action of the drug are enlisted and analysed as per the literature. *Ghrita Kalpana* is one of the *Sneha Kalpana* where herbs are processed in *Ghrita*, which is lipophilic in nature and crosses the cell membrane which is also lipid. *Ashtanga Ghrita* is one of the *Ghrita Kalpana* where *Medhya Dravyas* is processed in *Ghrita* media, the entry of Drugs into Brain Cells and crossing the Blood Brain Barrier becomes easier due to the lipophilic nature of *Ghrita*.

Keywords: *Vacha*, *Bakuchi*, *Manduka Parni*, *Shankapushpi*, *Shatavari*, *Brahma Soma*, *Amruta*, *Brahmi*, *Godugdha* and *Goghrita*

INTRODUCTION

The holistic approach of *Ayurveda* emphasizes health promotion, disease prevention, early diagnosis, and personalized treatment. In *Ayurveda* accomplishment of treatment completely depends upon the four factors known as *Chikitsa Chatuspada*.¹ These pillars include *Bhishak*, *Dravya*, *Upastha*, and *Rogi*. *Acharya Bhela*² had given the first and foremost importance to the drug, hence it is placed first in the *Chikitsa Chatuspada* from the point of its actions leading to the cure of the diseases. If these four factors are endowed with proper qualities, then one can succeed in the cure of the disease.

Drug Review

Table no.1 *Ashtanga Ghrita* according to *Sahasra yoga*

Sl.no	Ingredients	Botanical name	Part used	Quantity
1.	<i>Vacha</i>	<i>Acorus calamus</i>	Rhizome	1part
2.	<i>Indulekha</i>	<i>Psoralea corylifolia</i>	Seed	1part
3.	<i>Manduka Parni</i>	<i>Centella asiatica</i>	Whole plant	1part
4.	<i>Shankapushpi</i>	<i>Convolvulus pluricaulis</i>	Whole plant	1part
5.	<i>Shatavari</i>	<i>Asparagus recemosus</i>	Roots	1part
6.	<i>Brahma Soma</i>	<i>Argyria speciosa</i>	Stem	1part
7.	<i>Amruta</i>	<i>Tinospora cordifolia</i>	Leaves	1part
8.	<i>Brahmi</i>	<i>Bacopa monnieri</i>	Whole plant	1part
9.	<i>Goghrita</i>	Cow ghee	Cow ghee	4parts
10.	<i>Godugdha</i>	Cow milk	Cow milk	16parts
11.	<i>Jala</i>	Drinking Water	Drinking Water	4parts ⁵

Pharmacodynamics of the drugs

1. *Vacha*⁶

Botanical Name: *Acorus Calamus*

Family name: *Acoraceae*

Synonyms: *Vacha*, *Uragandha*, *Shadgrantha*, *Shataparva*, *Lomasha*

Rasa: *Katu*, *Tikta*

Guna: *Laghu*, *Tikshna*

Virya: *Ushna*

Vipaka: *Katu*

Karma: *Vamaka*, *Medhya*, *Krimihara*

Doshaghna: *Vata Kapha-Hara*

Rogaghna: *Apasmara*, *Unmada*, *SmritiDourbalya*

Part used: *Rhizomes*

2. *Bakuchi*⁷

Botanical name: *Psoralea corylifolia*

According to our *Acharyas*³ drug administered to the patient should possess the following four qualities such as *Bahuta* (abundance in availability and quality), *Yogyatwa* (suitable for specific preparations), *Aneka Vidhi Kalpana* (various pharmaceutical forms), and *Sampat* (enrich with potency).

*Ashtanga Ghrita*⁴ is unique preparation with eight ingredients, hence the name *Ashtanga Ghrita*. These ingredients individually exhibit *Medhya karma*, evidently, the formulation prepared out of these results in *Medhya Karma*. *Ashtanga Ghrita* and the drugs used in the preparation of *Ashtanga Ghrita* are reviewed as per classical texts and research works.

Family name: *Fabaceae*

Synonyms: *Somavalli*, *Avalguja*, *Kalameshi*, *Indulekha*, *Suparnika*

Rasa: *Tikta*, *Katu*

Guna: *Ruksha*

Virya: *Sheeta*

Vipaka: *Katu*

Karma⁸: *Rasayana*, *Ruchya*, *Medha-Chavi-Vardhaka*

Doshaghna: *Kapha-Hara*

Rogaghna: *Krimi*, *Kushta*

Part used: *Bija*

3. *Manduka parni*⁹

Botanical name: *Centella asiatica*

Family name : *Umbelliferae/Apiaceae*

Synonyms: *Manduki*, *Twashtri*, *Somavalli*, *Aditya Valli*

Rasa: *Tikta*, *Kashaya*, *Madhura*, *Katu*

Guna: Laghu, Sara

Virya: Sheeta

Vipaka: Madhura

Karma¹⁰: Sara, Medhya, Rasayani, Swarya, Smrutiprada

Doshaghna: Kapha Pitta shamaka

Rogaghna: Kushta, Pandu, Mehasra, Kasa, Visha, Shopha.

Part used: Whole herb or leaves

4. Shankapushpi¹¹

Botanical Name: Convolvulus pluricaulis

Family name: Convolvulaceae

Synonyms: Shankapushpi, Shivabrahmi, Bhutilata, Medhya, Shankahva

Rasa: Tikta, Katu, Kashaya

Virya: Sheeta

Vipaka: Katu

Karma¹²: Saraka, Medhya, Vrushya, Balya, Deepana

Doshaghna: PittaKapha-Hara¹³

Rogaghna: Manasaroga, Unmada, Visha, Apasmara

Part used: Whole herb

5. Shatavari¹⁴

Botanical Name: Asparagus racemosus

Family name: Asparagaceae

Synonyms: Bahuputra, Shatamuli, Shatapadi, Narayani, Atrisa, Abhiru

Rasa: Madhura, Tikta

Guna: Guru, Snigdha

Virya: Sheeta

Vipaka: Madhura

Karma: Vrushya, Balya, Medhya, Rasayana, Shukrala

Doshaghna: Kapha Vataghna, Pittahara

Rogaghna: Sutikaroga, Shotha, Kshaya

Part used: Roots

6. Brahma Soma¹⁵

Botanical name: *Argyreia speciosa*

Family name: Convolvulaceae

Synonyms: Antakotarpushpi, Chagalanghri, Vryddhadaraka, Samundrasosha

Rasa: Kashaya, Katu, Tikta

Virya: Ushna

Karma: Rasayana, Vrushya, Saaraka, Ayu-Bala-Medha-Agni-Svara-Kaantikara, Sara

Doshaghna: Vata-Kaphanashaka

Rogaghna: Amavata, Shotha, Prameha

Part used: Roots, leaves, flowers, seeds

7. Guduchi¹⁶

Botanical name: *Tinospora cordifolia*

Family name: Menispermaceae

Synonyms: Chinnaruha, Kundali, Bhishakpriya, Amruta, Rasayani

Rasa: Tikta, Kashaya

Guna: Laghu

Virya: Ushna

Vipaka: Madhura

Karma: Rasayani, Sangrahini, Balya, Dipana, Medhya¹⁷

Doshaghna: Tridosha-Shamaka

Rogaghna: Kamala, Pandu, Kushta, Jwara

Part used: Stem

8. Brahmi.¹⁸

Botanical name: *Bacopa monneri*

Family name: Scrophulariaceae

Synonyms: Brahmini, Saraswati, Satyavati, Divya, Medhya, Sharadi

Rasa: Tikta, Kashaya, Madhura

Guna: Laghu, Sara

Virya: Sheeta

Vipaka: Madhura

Karma: Rasayana, Ayushya, Medhya, Matiprada, Prajnasthapana, Visha Hara, Swarya

Doshaghna: Vatahara, Kaphahara

Rogaghna: Kushta, Jwara, Prameha, Pandu, Manovikara

Part used: The whole plant

9. Godugdha

Constituents^{19,20}:

Cow's milk is composed of about 87% water, 3-4% fat, 3.5% protein, 5% lactose, and 1.2% minerals based on the breed.

Rasa: Madhura

Guna: Snigdha, Guru

Virya: Sheeta

Vipaka: Madhura

Karma²¹: Dosh Dhatu Mala Strota Kledakara, Stanyakrut, Pathya, Ruchya, Kanti, Prajna Buddhi, Medha Virya Vruddhi

Doshaghna: Vata-pittasra-Nashana

Rogaghna: Sarva Roga and Jwara Nashana

10. Goghrita²²

Ghrita, always made from the milk of a cow is considered sacred and used in diet as well as a medication as an immunomodulator. Ghrita has multi-fold medicinal properties, one among them is to absorb the active constituents of a drug into it, without leaving its inherent property.

Synonymns: Ajya, Havisya, Sarpi, Ghrita

Rasa: Madhura

Guna: Guru, Snigdha, Mrudu

Virya: Sheeta

Vipaka: Madhura

Karma: Agnidipana, Anabhishtandhi, Chakshushya, Vayasthapaka, Rasayana, Rakshoghna, Rochana Dhi, Kanti, Pushti, Medha, Smritidayaka, Balakara, Vrushya, Oja Tejavruddhikara

Doshaghna: Vata Pitta-Prashamana

Rogaghna: Agnidagdha, Amplapitta, Atisarsa, Jirna Jwara, Kshataksheena, Visarpa, Visha, Shas-tradagdha, Mada, Murcha, Vishavikara, Yonishula and Smritinasha

11. Jala²³

Synonymns: Paniya, Salila, Nira, Keelala, Ambu, Ap, Varvari, Toya, Paya, Paatha, Udaka, Jivana, Vana, Ambha, Arna, Amruta, Ghanarasa.

Rasa: Madhura

Guna: Laghu

Virya: Sheeta

Vipaka: Madhura

Karma: Ahladana. Alasyahara, Balya, Hridya, Ruchida, Dhibalavirya Tushtijanana, Santarpana, Klamahara, Medohara, Pachana, Nidrahara, Vrushya, Vishahara.

Doshaghna: Pitta-shamaka

Rogaghna: Ajirna, Bharanti, Chardi, Krodha, Moha, Murcha, Mukha Shosha, Tandra, Vibhandha, Visha Vikara

Pharmaceutical review²⁴:

- All the herbal drugs required for the preparation of Ashtanga Ghrita are taken individually in specified quantities and dried in sunlight.

- After complete drying, fine powder of the herbal drugs is prepared by pounding separately in *Khalwa Yantra*.
- Fine powder of the herbal drugs is mixed with each other in *Khalwa Yantra* to obtain a homogeneous mixture.
- Triturate this mixture with a sufficient quantity of *Jala* to prepare *Kalka*.
- Take *Goghrita* in a wide-mouthed vessel and heat it on mild fire to eliminate moisture and foul smell.
- *Ghrita* is withdrawn from the fire and prepared *Kalka* is added to it slowly with continuous stirring.
- Add the mentioned quantity of *Jala* and *Godugdha* and heat on mild fire till the completion of the *Sneha Paka*.
- After attaining the *Sneha Siddhi Lakshanas*, filter the prepared *Ghrita* through a clean cotton cloth. After self-cooling, the filtered *Ghrita* is stored in an airtight container as *Ashtanga Ghrita*.

Classical parameters to assess Ghrita Paka Siddhi Lakshanas²⁵

- *Sneha Kalka* should become wick-like when rolled between two fingers.
- When *Sneha Kalka* is sprinkled over the fire it should not produce any sound.
- The foam should disappear in *Ghrita Paka*.
- Specific colour, odour, and taste of the ingredients should be appreciated

DISCUSSION

The *Ayurveda* system proposes that the drugs exert their action on the human system based on the specific property that is innate to them. The five pharmacodynamic properties responsible for the action of the drug are *Rasa*, *Guna*, *Virya*, *Vipaka*, and *Prabhava*. *Dravyas* mentioned in classics with *Tikta Rasa* promote *Medhya Karma* and most of the above drugs are *Tikta* in *rasa*. These drugs are *Ushna* as well as *Sheeta* in *virya*, which helps to maintain the equilibrium of *Pitta* and *Kapha Doshas*, which are responsible for the quicker grasping and longer retention of

knowledge. The probable mode of action of each ingredient related to *Medhya Karma* can be taken as follows.

1. Vacha: *Tikta Rasa* of the drug yields in *Medhya Karma*, *Laghu* and *Tikshna Guna* of *Vacha* helps in faster action of the drug. Stimulating the cognitive centres, this in turn improves cognition.

2. Bakuchi: *Ruksha guna* of the drug helps in drying the excess *Kapha* from the cells, which results in *laghuta* and increases *rajo guna* which stimulates the grasping capacity leading to the perception of knowledge.

3. Manduka Parni: *Tikta, Kashaya, Madhura, Katu Rasa, Madhura Vipaka* and *Sheeta Virya* of the drug improve the general physique and have a soothing effect on the mind. As per the research works Asiatic acid and a pentacyclic triterpene in *Centella asiatica* improve cognitive enhancement, prevent oxidative stress, and enhance neuronal dendrites, and dendritic growth in the hippocampal CA3 neurons in adult rats. Antidepressant activity²⁶.

4. Shankapushpi: *Shankapushpi* enhances memory function due to its antioxidant and acetylcholinesterase inhibitory properties²⁷.

5. Shatavari: *Madhura* and *Tikta rasa* results in *Medhya Karma*, *Guru*, and *Snigdha Guna* help in nourishing the cells. *Sheeta virya* of the drug may act by promoting nutrition or by promoting receptor stabilization or even by increasing the receptor sites.

6. Soma: Aqueous extract of roots of *A. speciosa* (100 and 200 mg/kg) was reported for nootropic and anticholinesterase activity. The nootropic was evaluated using the elevated plus maze test and passive shock avoidance paradigm²⁸.

7. Guduchi: *Ushna Virya* of the drug probably may have a quicker action of short duration, and may act by promoting metabolic activity, facilitating permeability, and enhancing the receptor competence.

8. Brahmi: According to the research works on the drug *Brahmi*, *Bacopa monnieri* may have potential application to enhance cognition in healthy subjects. In the study, rats were administered with ethanolic extract of the whole plant for 3 or more days and evaluated cognitive performance using shock-

motivated brightness discrimination reaction, active conditioned flight reaction, and continuous avoidance response tests. The BM-treated group shows significantly better acquisition, improved retention, delayed extinction, and faster reaction times than controls²⁹.

9. Godughda and Goghrita both are considered as *Achara Rasayana*, if consumed daily maintains *Dhatu Samyata*, acts as *Rasayana i.e.*, delays the aging process by keeping the body healthy and fit. Both are considered *Buddhi, Smriti*, and *Medha Vardhaka*, and can be used as a diet, medicament, and immune modulator.

The textual references and research works prove the *Medhya* action of the individual drugs.

Ashtanga Ghrita might have worked on the central nervous system by crossing the Blood-brain barrier because of its lipophilic property, thus stimulating higher mental functions. Growth is achieved by the nourishment of *Rasadi Dhatus* and *Ashtanga Ghrita* might cause *Brihmana* by *Snigdha Guna*³⁰

CONCLUSION

- To conclude, probably different drugs exist for their *Medhya* effect through different modes.
- Most of the ingredients possess *Tikta* and *Madhura Rasa* and are *Medhya* in action. Whereas the drugs with *Madhura Rasa, Madhura Vipaka*, and *Sheeta Virya* might produce a preponderance of *Kapha Prabhava* and a similar effect on the person consuming such drugs. These drugs nourish the physique and tranquilize the mind.
- The drugs with *Ushna Virya* may improve the functions of the mind by its *Vatahara* property yielding quicker action in a short duration.
- *Ghrita Kalpana* where herbs are processed in *Ghrita* results in the augmentation of their activity and utility. This lipophilic nature of the formulation aids the entry of the drug into the brain cells by crossing the Blood Brain Barrier.

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