British Journal of Healthcare and Medical Research - Vol. 11, No. 2
Publication Date: April 25, 2024
DOI:10.14738/bjhmr.112.16811.
Hewageegana, H. G. S. P. (2024). Literature Review and Treatment Approach with Commonly Used Ayurveda and Traditional Decoctions for Kampavata (Parkinson's Disease). British Journal of Healthcare and Medical Research, Vol - 11(2). 215-227.
SERVICES FOR SCIENCE AND EDUCATION

Literature Review and Treatment Approach with Commonly Used Ayurveda and Traditional Decoctions for *Kampavata* (Parkinson's Disease)

H. G. S. P. Hewageegana
Department of Ayurveda Medicine and Indigenous Medicine,
Faculty of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka

ABSTRACT

***Kampavata* is included in *Vataja Nanatmaja Vikara* (endogenous diseases caused by only one *dosha*), also known as *Vepathuvata*, explained by Acharya Charaka in Charaka Samhita, Sutrasthana, 20th chapter. It is a considerable problem in the ageing society because they face *Dhatu kshaya* conditions (body tissues are not neutralising properly, and as a result, *Vata* and *Kapha dosha* are gradually being vitiated). *Samprapti* of *Kampavata* develops with *Srotorodha* (*Sanga*) or by *Dhatu kshaya* inside the brain. Sometimes, family history causes the *Kampavata* disease. This study aims to assess the pharmacodynamic properties of commonly used herbal decoctions for *Vata vyadhi*, compelling individuals to adopt them to correct the pathology and alleviate the symptoms of the disease. Consequently, *Maharasnadi Kashaya, Arkananthadi Kashaya, Punarnawa Kashaya, Dashamula Mruthairanda Kashaya, Brahmimundi Kashaya, Gandarvahasthadi Kashaya, Prasarinyadi Kashaya, Mashatmagupthadi Kashaya* were identified as suitable decoctions to prescribe in the pathological conditions such as *Srotorodha* (*Sanga*) or *Dhatu kshaya. Gandarvahasthadi Kashaya, Mashatmaguptadi Kahsaya, Maharasnadi Kashaya, Arkananthadi Kashaya, Punarnawa Kashaya, Dashamulamruthairanda Kashaya, Brahmimundi Kashaya and Prasarinvadi Kashaya* can be used to reduce the symptoms such as *Kampa* (tremor), *Sthambha* (stiffness), *Vag vikruti* (Speech disorder) and night-time urination (nocturia) and *Vit vibandhata* (constipation). Accordingly, the most suitable decoctions can be applied to the sickness to get more positive results on a scientific basis through Ayurveda *Chikitsa*.**

Keywords: *Kampavata, Vataja Nanatmaja Vikara,* Herbal decoctions, Pharmacodynamic properties

INTRODUCTION

Kampavata is included in *Vataja Nanatmaja Vikara* (endogenous diseases caused by a single *dosha*), also known as *Vepathu vata*, explained by Acharya Charaka in Charaka Samhita, Sutrasthana, 20th chapter [1]. There is little reference in Vedic literature pertaining to *Kampavata* and *Vepathu vata.* In Rigveda, it is mentioned that Indra suffered from the disease *Vepathu.* Acharya Sushruta has not mentioned *Vepathu* as a separate disease. According to Astangahridaya, *Kampa* is a symptom in *Vata prakopa* (vitiation of *Vata*) and *Sarvanga vata*. *Kampa* is recognised as a symptom of *Rakta-kshaya*, *Pitta-kshaya* and *Kapha-kshaya.* Acharya Madhava mentions *Vepathu* in a separate chapter where *Vepathu* is characterised as *Sarvanga*

Kampa (tremor all over the body) and *Shirokampa* (tremor in the head). Basavarajeeyam explained symptoms of *Kampavata* as *"Karpadatale Kampa"* (tremor in hands and legs), *Deha Bhramana*, and *Nidrabhanga* (sleeplessness) [2].

According to Allopathic medicine, Parkinson's disease (PD) is one of the common neurodegenerative disorders affecting more than one million Americans and 10 million people worldwide. Parkinson's disease gets its name from an essay on "Shaking Palsy" by James Parkinson in 1817. In the essay, he described six patients with paralysis agitans (shaking palsy) characterised by "involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forward, and to pass from a walking to a running pace: the senses and intellects being uninjured" [3].

It is a pronounced problem in the ageing society as PD affects 1-2 per 1000 of the population at any time. PD prevalence is increasing with age and affects 1% of the population above 60 years [4]. The Global Burden of Disease (GBD) study reported that the number of incidents of PD was 1.02 million in 2017 [5]. PD incidence was 1.5 times higher in men than women [6 - 7].

The most common distinguishable symptom of PD is "Pill rolling tremor." As it is mentioned in Shabda Kalpadruma, "*Na Kampo Vayuna vina*" (without *Vata*, there is no manifestation of *Kampa*), is considered under *Vatavyadhi* [8].

LITERATURE REVIEW OF *KAMPAVATA*

In the late 7th century AD, the physician Madhava Acharya, in his 79th chapter, described "*Vepathu"* in various diseases, characterised by *Sarvanga kampa*, symptoms such as rigidity, spasm, and pain. Internal and external medications play a vital role in reducing the symptoms, preventing or slowing down the degenerative changes in the brain. Patients may be able to reduce their dependency on their medication gradually. *Vatahara* and *Vatanulomana* actions of the decoctions help to reduce the symptoms of *Kampavata*. *Rasayana* drugs stated in *Rasayana chikitsa* are essential nutritional agents, and *Medhya Rasayana* is a specific nerve tonic with a nootropic effect [9]. Therefore, *Vatahara* and *Rasayana* property medicines can be used to treat *Kampavata* [10].

Etiological Factors in Ayurveda (*Nidana*)

Separate *Nidana* for *Kampavata* is not explained in Ayurveda texts. General etiological factors of *Vatavyadhi* (*Samanya Nidana*) are responsible for Kampavata (*Vepathu vata*) as it is mentioned as one of the *Vatavyadhi.*

Clinically, most patients do not have a strong genetic connection. *Rukshadi guna*: *Ruksha, Laghu, Ahara*, *Visha*: toxins or some medicines, *Sirobhighata* (repeated head trauma), or neurological disorders may predispose individuals to develop this condition as they age. The disease is described as one of eighty *Vataja* diseases (*Vataja Nanatmaja Vikara*). Accordingly, the following causative factors of *Vata Vyadhi* can be considered as etiological factors. Use of *Laghu, Ruksha, Sheeta, Katu, Kashaya, Tikata Ahara, Vishamasana, Athibuktha, Abhojana, Atilangana, Mutra and Purisha avarodha, Ratri jagarana and Manasika nidana like Chintha, Kroda, Shoka, Bhaya, Krodha* according to Charaka Samhita (Ca/Su/28/17).

For *Vata dosha*, the *Vishesha sthana* is *Pakvashaya* - the colon. Therefore, when *Vata* accumulates because of dietary choices, lifestyle factors, or the ageing process, it tends to accumulate and exacerbate within the colon, leading to a gradual development of pathogenesis.

Samprapti

No specific *Samprapti* is described, and the common *Vata vyadhi samprapti* is considered for *Kampavata.* The vitiated excess *Vata dosha* mix with the blood (*dosha-dushya sammurchana*) disturbs *Vyana Vata* (sub-*Vata* dosha), leading to signs of *Vata* vitiation anywhere in the body (coldness, dryness, roughness, irregularity, lightness, quickness, loss of density, loss of structure). *Vata* relocates (*Sthana-samsraya*) into *Majja dhatu. Vata dosha*, which initially accumulated in the *Pakvashaya*–colon entering and relocating to this brainstem region (*Majja dhatu*), causes the damage. Vitiation of *Dosha* can cause dysfunction of the sensitive homeostatic centres in the brain and brainstem.

In PD, it is well-established that damage occurs to the extrapyramidal tracts, whose neurons originate in the medulla and pontine regions, thereby regulating fine motor movements.

Samprapti Ghathaka of *Kampavata*

- *Dosa - Vata kopa*, *Pitta kshaya* (*Hinapitta*)
- *Dhatu - Mamsa, Medas*
- *Upa dhatu - Snayu*
- *Deha dosha - Ekanga / Sarvanga*
- Specific pathology - Mamsa *medogata vata, Sarvanga vata*

Purva rupa of *Kampavata*

Avyakta purva rupa means they are not mentioned anywhere in the classics. Acharya Charaka states that all *Vata vyadhi* have *Avyakata purva rupa* because the *Samprapti* of the disease manifests suddenly due to *Ashukaritva* of *Vata dosha.* However, in *Kampavata*, a slight tremor starts as *Purva rupa* and gradually develops as a severe tremor.

Rupa of *Kampavata*

Kampavata usually starts in the middle or late life and progresses in all ethnic groups. *Kara-padatale kampa* (tremors in hands and legs)*, Deha bhramana* (giddiness), *Nidrabhanga* (insomnia), *Stambha* (rigidity)*, Smruiti kshhaya* (dementia), *Ceshta sanga* (bradykinesia/slowness or loss of movement)*, Gati sanga* (disturbance of motor functions), *Vak Vikriti* (speech disorder), *Vinamana* (flexed posture), and *Vid vibandha* (constipation), are mentioned as *Rupa* of *Kampavata.*

Stambha (rigidity) is a cardinal symptom of *Vata dosha kopa*. *Kampa* (tremor) is a cardinal symptom of *Vata dosha vruddhi*, Vata *dosha kopa,* and *Pitta dosha ksaya*. *Vepana* (shaking) is explained under the symptom of *Kapha dosha kshaya*. The diagnosis is based on medical history, reviewing signs and symptoms. Charaka says *Avarana* of *Vyana Vata* and *Udana Vata* by *Kapha dosha* produces symptoms such as *Gatisanga*, *Swaragraha*, *Guru gatrata*, *Stambana* and *Kampana.*

In PD, the physical signs include tremors at rest, rigidity on passive movement (cogwheel rigidity of the limbs), slowness of movements (bradykinesia), shuffling feet when walking

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.

(festinated gait), decreased body movement (hypokinesia), arms do generally not swing when walking, postural instability (feet feel "stuck to the floor" when walking or changing directions and falls), and mask facies (face appears to be fixed without expression). These features are unilateral at the onset but become bilateral as the condition progresses. Later, orthostatic hypotension and dementia can develop.

Common non-motor symptoms include cognitive impairment, especially with concentration sleep disorders, such as excessive daytime sleeping, insomnia, or REM sleep disorder, depression, anxiety, postural hypotension (low blood pressure when standing), frequent urination, impaired speech (slurred or low volume), swallowing difficulties (drooling) and anosmia (loss of sense of smell).

Sadyasadyata

Most Acharya consider *Shuddha vataja vyadhi* to be *Asadhya* (cannot cure) or *Krichra sadhya* (challenging to cure). Hence, *Kampavata* is one of the *Shuddha vata vyadhi*, and *Krichrasadhya* or *Asadhya* for *Chikitsa*.

Treatment (*Chikitsa*)

Kampavata is included in eighty types of *Vata vyadhi*. There is no separate description of treatment available in Samhitas for *Kampavata*. Hence, general Ayurveda treatment of *Vata vyadhi* is also considered for *Kampavata*. The exposition of the line of treatment of the diseases due to the provocation of *Vata* has been given in all the primary Ayurvedic texts.

Internal Treatments

Acharya Charaka mentioned that *Mrudu Virechana* as a *Shodhana karma* for treating *Vatavyadhi*. Acharya Vagbhata has stated *"Nasa hi shiraso dwaram"*. The drugs administered will reach the *Shringataka marma* (a vital point of the head) and spread through the opening of *Siras* of the eye, ear throat and head. Acharya Chakradatta and Acharya Vangasena have indicated *Nasya karma* in *Kampavata*. However, no satisfactory treatment has been identified. Therefore, a multi-modality treatment in the form of *Panchkarma* procedures are selected. As, the disease *Kampavata* is *Dhatukshyaja Vatavydhi* and *Apatarpana* in nature, treatment principle is followed as *Santarpana Chikitsa*.

Vangasena has clearly mentioned the treatment of *Kampavata* as *Abhyanga, Swedana, Basti, Virechana* and *Shamana*. *Madhu tailika vasti* is used under the *Vasti karma.* Major Panchakarma therapies such as nasal administration of drops of warm oil (*Nasya*) in each nostril, enema (*Vasti*) with medicated oil and herbal decoctions are also done [11].

Snehana is an external application and internal intake of medicated oils*.* External oleation is done by *Abhyanga* or *massage* of the body by medicated oils*.* Few effective oils used for *Abhyanga* are *Bala taila, Laghu Vishagarbha taila, Maha Vishagarbha taila, Narayana taila, Prasarini taila, Tila taila, Ksheerabala taila, Ashwagandha taila* and *Mahamasha taila.* These are the best source for curing/balancing the abnormal *Vata dosha*.

Murdhini taila can be used for *Vataja* disorders mainly related to *Murdha pradesha*. There are four types of *Murdhini taila* such as *Shiro Abhyanga*, *Shiro Dhara*, *Shiro Pichu* and *Shiro vasti* [12]. According to *Keraliya pancakarma*, therapeutic oil massage, application of a poultice made

of herbal leaves dipped in warm oil (*Elakizhi*), a continuous stream of oil all over the body (*Pizhichil*), application of a poultice made with cooked herbal grain in a mix of herbal decoction and cows' milk (*Shashtikashali pinda swedana - Navarakizhi*) are the therapies usually done in this type of *Dhatu kshya janya* diseases.

As an internal treatment, decoctions with the properties of *Vata shamaka* and *Tharpana* are usually giving throughout the treatment. This study identified the most suitable ten decoctions, and their qualities were evaluated for use for *Kampavata*.

Decoctions (*Kashaya*) which are potent to *Vata viyadhi* were collected by reviewing common treatment texts such as: *Ayurveda Aushadha Sangrahaya* [13], *Kashaya Sagaraya* [14], *Kashaya Sangrahaya* [15], *Sarasankshepaya* [16], and *Deshiya Chikitsa Sangrahaya* [17].

The decoctions and the ingredients are as follows;

1. *Maharasnadi Kashaya:* Rasna (*Pluchea lanceolata*), Dhanvayasa (*Alhagi pseudalhagi*), Country mallow (*Sida cordifolia*), Castor root (*Ricinus communis*), Devadaru (*Cedrus deodara*), Shati (*Hedychium spicatum*), Vacha (*Acorus calamus*), Vasa (*Adhatoda vasica*), Ginger (*Zingiber officinalis*), Haritaki (*Terminalia chebula*), Chavya (*Piper chaba*), Musta (*Cyperus rotundus*), Punarnava (*Boerhavia diffusa*), Guduchi (*Tinospora cordifolia*), Vriddhadaru (*Argyria speciosa*), Shatapushpa (*Anethum sowa*), Gokshura (*Tribulus terrestris*), Ashwagandha (*Withania somnifera*), Prativisha (*Aconitum heterophyllum*), Golden rain tree (*Cassia fistula*), Shatavari (*Asparagus racemosus*), Long pepper (*Piper longum*), Porcupine flower (*Barleria prionitis*), Yellow berried nightshade (*Solanum xanthocarpum*), Coriander seeds (*Coriandrum sativum*), Poison berry (*Solanum indicum*).
2. *Arkananthadi Kashaya: Arka (Calotropis gigantean), Ananta (Hemidesmus indicus), Kirata (Swertia chirata), Maradaru (Cedrus Deodara), Rasna (Alpinia calcarata), Sinduvara (Vitex negundo), Ugragandha (Acorus calamus), Tarkari (Mahamidi), Panchoshna (Pippali [Piper longum fruit], Pippali mula* [*Piper longum root], Cavya [Piper chawya], Chitraka [Plumbago Indica], Nagara [Zingiber officinale]), Gunadaita (Aconitum heterophyllum), Markavana (Eclipta prostrata).*
3. *Gandarvahasthadi Kashaya: Gandarahastha* (*Ricinus communis* Linn), *Chirabilwa* (*Holoptelea integrifolia* Planch), *Hutaswa (Plumbago zeylanica Linn.), Vishwam (Zingiber officinale Roxb.), Pathya (Terminalia chebula Retz.), Punarnava (Boerhavia diffusa Linn.), Yavashaka (Tragia involucrata Linn.) and Shatavari (Asparagus racemosus Willd.).*
4. *Punarnawadi Kashaya: Punarnava (Boerrhavia diffusa), Nimba (Melia azedarachta), Patola (Trichosanthes dioica), Shunthi (Zingiber officinalis), Kutki (Picrrorhiza kurroa), Guduchi (Tinospora cofdifolia), Devdaru (Cedrus deodaru), Haritaki (Terminalia chebula).*
5. *Pathyaksha dhatri Kashaya: Pathya (Terminalia chebula), Aksha (Terminalia bellirica), Dhathri (Phyllanthus emblica), Venival, Amrita (Tinospora cordifolia), Bhunimba (Swertia chirayita), Nimba (Azadirachta indica.*
6. *Dashamula mruteianda Kashaya: Bilva (Aegle marmelos), Agnimantha (Premna serratifolia), Shyonaka (Oroxylum indicum), Kashmari (Gmelina arborea), Patala (Stereospermum suaveolens), Sarivan, Kantakari (Solanum indicum), Shalaparni (Desmodium gangeticum), Prishniparni (Uraria picta) and Gokshra (Tribulus terrestris), Amrita (Tinospora cordifolia)*

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.

7. *Mashatmagupthadi Kashaya: Masha (Vigna mungo), Atmagupta (Mucuna pruriens), Vatari (Ricinus communis Linn.), Vatyalaka (Sida cordifolia)*
8. *Trivt swarna patri Kashaya: Tirassavalu (Operculina turpatum), Ahela (Cassia angustifolia).*
9. *Prasarinyadi Kashaya: Prasarani* (*Merremia tridentata Hallier. F). Masha (Vigna mungo), Bala (Sida cordifolia), Mahawshada (Zingiber officinale)*
10. *Bhrami mundi kashaya: Brahmi (Bacopa monnieri (L.) Wettst), Mundi (Oligolepis indicus (L.) Cass. ex Steud), Vacha (Acorus calamus L.), Shunthi (Zingiber officinale), Pippali (Piper longum) with Madhu (bees honey)*

RESULTS AND DISCUSSION

Ayurveda is regarded as an ancient medicinal system, which comprises compilations of 'Charaka Samhita,' 'Sushruta Samhita,' and 'Ashtanga Hridaya Samhita' [18], containing numerous medicinal preparations derived from medicinal plants for a wide range of diseases. Plants serve as major natural resources for traditional medicinal systems. Medicinal plants and herbal drugs contain different active ingredients and complexes of active compounds. The curative properties of medicinal plants are due to the presence of major active components, mainly alkaloids, triterpenoids, essential oils, phenolic compounds and many more. Ayurveda is the fundamental source of Vedic knowledge for understanding the remedial properties of plants (1000 BC). Different chemical compounds in medicinal plants give pharmacodynamic properties to the plants. The therapeutic potential of drugs related to their properties such as *Rasa* (taste), *Guna* (properties), *Veerya* (active potency), *Vipaka* (metabolism), and *Prabhava* (overall effect of drug) explains pharmacodynamics in Ayurveda [19 -22].

Main Pharmacodynamic Aspects of the Decoctions

In each decoction, the percentage of *Rasa* (taste) is depicted in Figure 1, the percentage of *Guna* (properties) in Figure 2, the percentage of *Veerya* (active potency) in Figure 3 and the percentage of *Vipaka* (metabolism) in Figure 4.

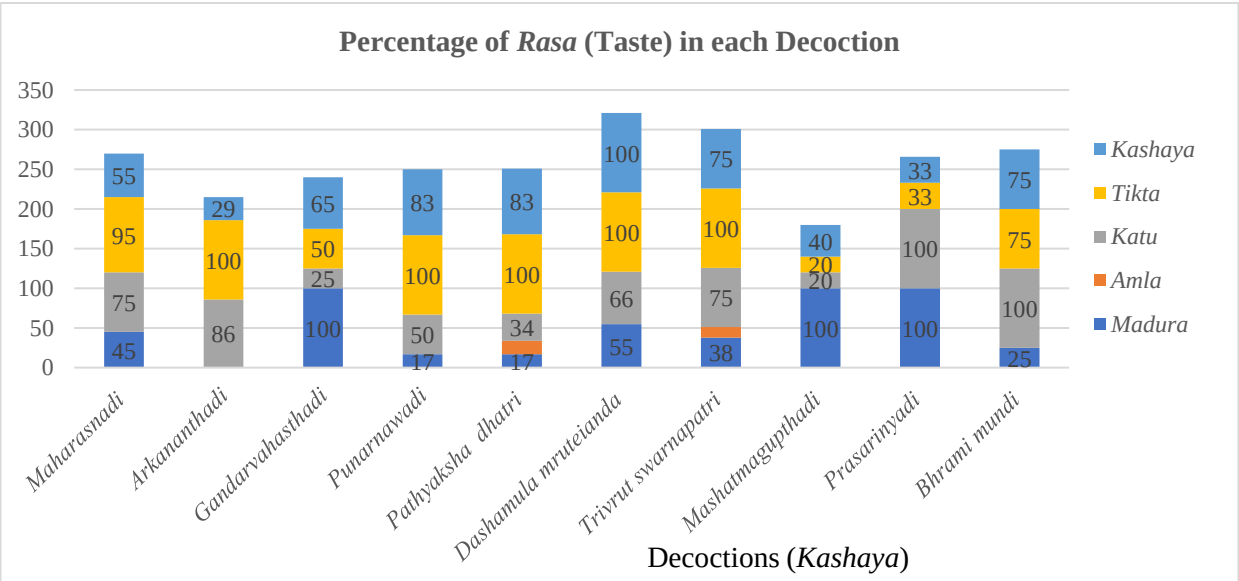

Fig.1: Percentage of *Rasa* (taste)

Most of the decoctions have *Tikta, Madhura, Kashaya* and *Katu Rasa*. *Madhura, Thikta,* and *Kashaya rasa* are *Vata dosha shamaka* properties.

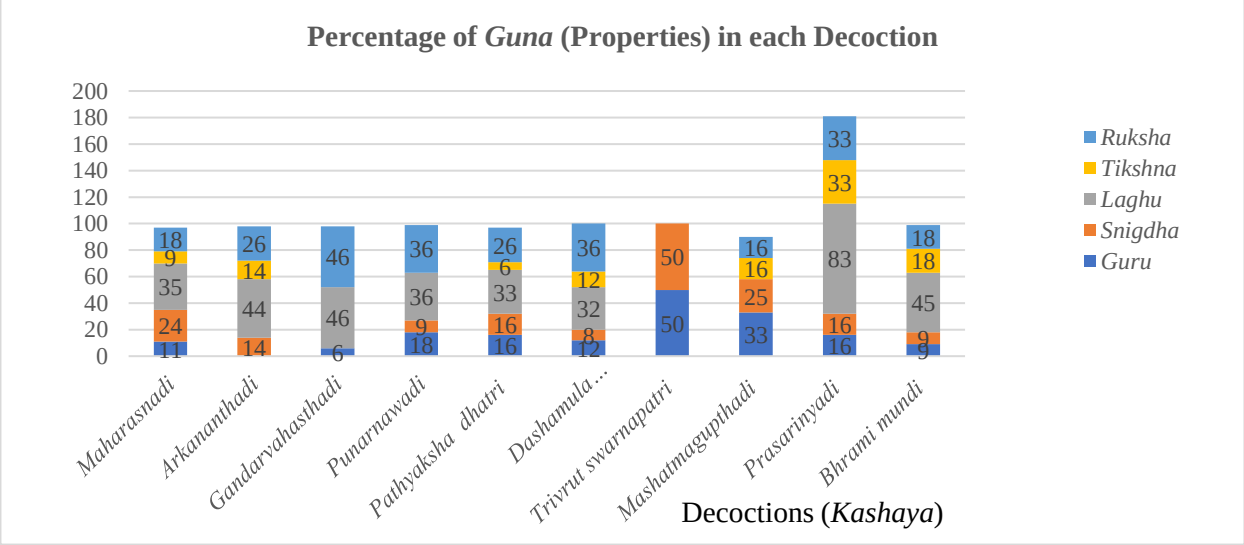

Fig.2: Percentage of *Guna* (Properties)

Laghu and *Ruksha Guna* are the main properties in most decoctions. *Snigdha* property is deficient in all decoctions other than *Trivrut Swarnapatri Kashaya*. Hence, those decoctions can easily be used for *Sroto sanga* situations as they do not cause obstructions within the *Srotas.*

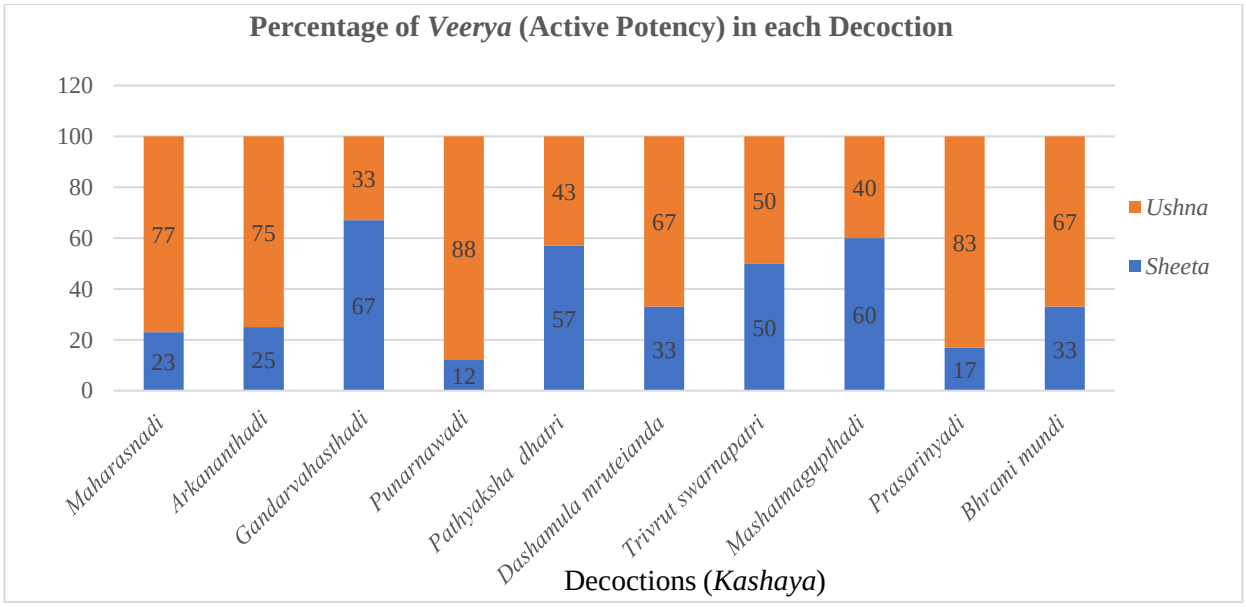

Fig.3: Percentage of *Veerya* (Active Potency)

Ushna guna is equal or more prominent (more than 50%) in eight decoctions. Those are mainly having *Vata shamaka* properties.

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.

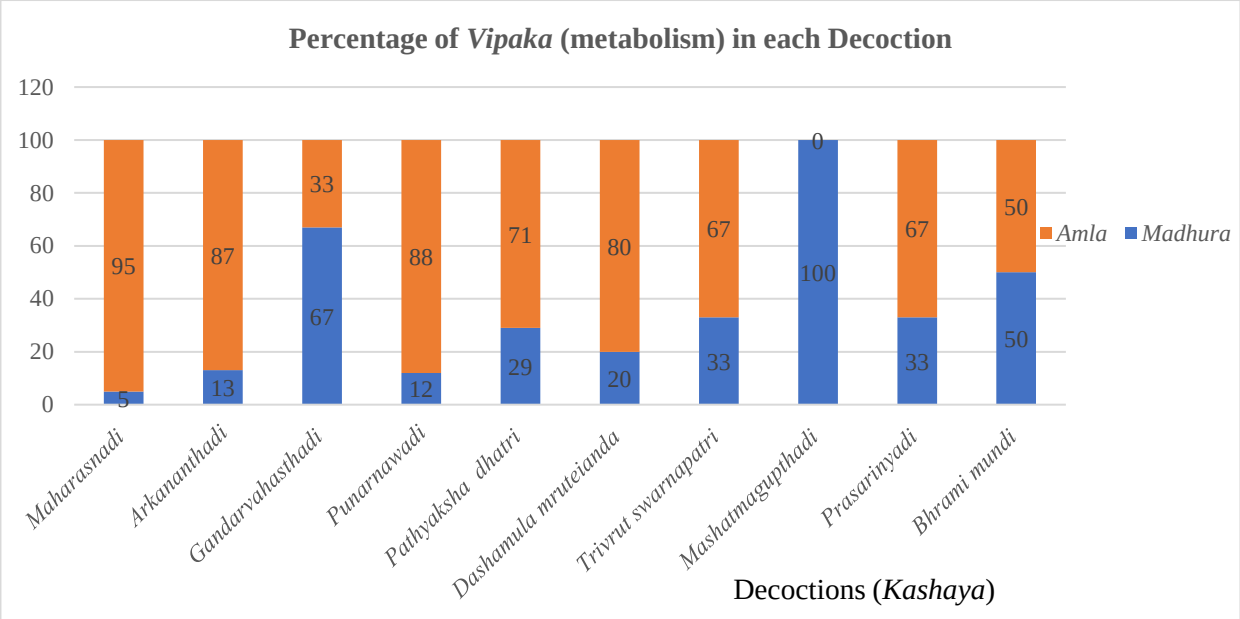

Fig.4: Percentage of *Vipaka* (Metabolism)

Mashatmaguptadi, and *Gandharvahastadi* decoctions have *Sheeta veerya*, while all others have *Ushna veerya*. Because of that, all decoctions other than the above two have *Vata* and *Kapha dosha Shamaka* properties. Analysis of the decoctions shows the main and predominant *Rasa, Guna, Veerya,* and *Vipaka* of each, as in Table 1.

Table 1: Predominant *Rasa, Guna, Veerya* and *Vipaka* in each decoction

Decoctions (*Kashaya*)	*Predominant Rasa*	*Predominant Dravya Guna*	*Predominant Virya*	*Predominant Vipaka*
Maharasnadi Kashaya	*Tikta (Bitter)*	*Laghu (Light)*	*Ushna (Hot)*	*Katu (Pungent)*
Arkananthadi Kashaya	*Tikta (Bitter)*	*Laghu (Light)*	*Ushna (Hot)*	*Katu (Pungent)*
Gandarvahasthadi Kashaya	*Madura (Sweet)*	*Laghu (Light), Ruksha (Rough)*	*Shita (Cold)*	*Madura (Sweet)*
Punarnawadi Kashaya	*Tikta (Bitter)*	*Laghu (Light), Ruksha (Rough)*	*Ushna (Hot)*	*Katu (Pungent)*
Pathyaksha dhatri Kashaya	*Tikta (Bitter)*	*Laghu (Light)*	*Shita (Cold)*	*Katu (Pungent)*
Dashamuli mrutaianda Kashaya	*Tikta (Bitter), Kashaya (Astringent)*	*Laghu (Light), Ruksha (Rough)*	*Ushna (Hot)*	*Katu (Pungent)*
Trivt swarna patri Kashaya	*Tikta (Bitter)*	*Guru (Heavy), Snigdha (Smooth)*	*Ushna (Hot), Shita (Cold)*	*Katu (Pungent)*
Mashatmagupthadi Kashaya	*Madura (Sweet)*	*Guru (Heavy)*	*Shita (Cold)*	*Madura (Sweet)*
Prasarinyadi Kashaya	*Madura (Sweet), Tikta (Bitter)*	*Laghu (Light)*	*Ushna (Hot)*	*Katu (Pungent)*
Bhrami mundi kashaya	*Tikta (Bitter)*	*Laghu (Light)*	*Ushna (Hot)*	*Katu (Pungent),*

				Madura (Sweet)

Different properties and actions of medicinal plants are essential in treating patients according to the *Dosha* condition of the disease. Understanding the *Rasapanchaka* (Ayurvedic pharmacological properties) of a drug is essential for its therapeutic use. Therefore, developing a standard and valid protocol for assessing the *Rasa*, *Guna*, *Veerya*, and *Vipaka* of medicinal plants is necessary. Taste (*Rasa*) is six-fold: sweet (*Madhura*), sour (*Amla*), salty (*Lavana*), sharp (*Katu*), bitter (*Tikta*) and astringent (*Kashaya*) (19).

The properties (*Guna*) are grouped in 10 pairs, each one complementary to the other: heavy and light, cold and hot, fat and dry, slow and sharp, stable and labile, soft and hard, clear and slimy, smooth and raw, fine and massive, viscous and liquid. Ayurveda explains *Guna* based on the effect observed after consumption or application of a medicinal drug.

The potency (*Veerya*) of a drug is defined as its ability to express its property. Sometimes, potency is grouped in the same way as the property, but for practical reasons, it is usually expressed in terms of hot (*Ushna*) and cold (*Sheeta*).

Each taste is composed of two of the five elements. The condition of the food substances after digestion is also expressed in terms of taste (*Vipaka*); however, they can only be sweet (*Madhra*), sour (*Amla*), or sharp (*Katu*).

In Ayurveda, *Vipaka* is generally assessed by the associated *Rasa* with the help of *Anumana* and Aptopadesha *Pramana,* which include a) *Madhura*, *Lavana Rasa* undergo *Madhura Vipaka*, b) *Amla Rasa* undergoes *Amla Vipaka*, and c) *Katu, Tikta, Kashaya Rasa* undergo *Katu Vipaka. Vipaka* of the drug is usually inferred to post the digestive effect of the drug on the body.

Prabhava means the overall effect of a drug. It is an inexplicable energy; therefore, it is also termed *Achintyashakti.* The specific property (*Prabhava*) distinguishes two drugs that have the same taste, taste after digestion and potency. *Prabhava* might be varies due to the composition of the drug or the location in the body where the drug acts. *Prabhava* is responsible for actions, including those of *Samshodhana. Prabhava* under various contexts, such as unpredictable or unexpected effects of a drug. These properties of drugs help to pacify *Tridosha, Dhatu, Mala, Srotas* and *Agni* and relieve pathological conditions. Sometimes, these medicines do not follow the properties such as *Rasa, Guna, Virya,* and *Vipaka* rules and are considered *Vichitra pratyarabdha* (*Panchabhautika* composition of substance becomes different after digestion and metabolism). If the substance retains its *Panchabhautika* composition throughout the digestion and metabolism, it is known as *Samana Pratyayarabdhata*. Finally, the action (Karma) of medicine on the body is expressed in terms of its effects on the three doshas. A drug can increase or decrease the *Vata dosha*, the *Pitta dosha* and the *Kapha dosha*.

Rasa in each plant or combination of plants (*Kashaya* or decoction) pacifies on *dosha* as follows: *Madhura rasa Vata* and *Pitta dosha*. *Amla rasa*: Increases *Kapha* and *Pitta dosha* and pacifies *Vata dosha*. *Lavana rasa* pacifies *Vata dosha* and increases *Kapha* and *Pitta dosha*. *Katu rasa*: increases *Vata dosha* and decreases *Kapha dosha*. *Tikta rasa*: pacifies *Kapha* and *Pitta dosha*. Kashaya *rasa*: also pacifies *Kapha* and *Pitta dosha*.

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.

Kampavata can occur due to *Dhatu Kshaya*, disturbances in *Mamsa dhatu* (muscle tissue) and *Medo dhatu* (fat tissue). Thus, *Kampavata* can be handled similarly to treating *Mamsagata vata* or *Medogata vata*. *Gatavata* is a condition wherein the vitiated *Vata* gets lodged in some tissue and disturbs the qualitative and quantitative integrity of that particular *Dhatu* leading to either depletion or destruction (partial or whole) of the tissue.

Madura rasa promotes the strength of *Dhatu*. *Madura, Amla* and *Kasaya rasa* are responsible for *Srothoroda* and *Katu*, *Tikta,* and *Lavana rasa* for *Srotho sodhana*. *Kampa* is one of the symptoms of *Vata vriddhi.* Being a predominantly aggravated character, the *Chala guna* (exaggerated movements of the body parts) produces Kampa, which is beyond the normal range of movements. *Stambha* cause due to *Kaphavruta vyana vayu*. Then *Kapha* could be pacified. *Katu, Tikta*, *Kashaya rasa,* and pacify *Kapha dosha*. *Katu, Amla* and *Lavana rasa* stimulate *Agni* and can be used in *Ama* condition. Speech disorder is caused by *Ruksha guna* of *Vata* and *Gati sanga* of *Udana* and *Vyana vata*. Then *Katu, Amla, Lavana* rasa drugs, which predominantly give *Ruksha guna* can not be used. *Madura, Amla* and *Lavana rasa* which gives laxative and diuretic properties, can be used for nocturia and constipation.

All decoctions are having *Ushna Veerya*. Hence, all decoctions can pacify *Kapha* and *Vata dosha* for *Kampavata*.

Samprapti and the symptoms of *Kampavata* are described in Table 2. *Vata prakopata,* or vitiation of *Vata dosha* happens through *Dhatukshaya* and *Margavarodha,* which later leads to *Vata vyadhi*. Among three *Dosha*, Vata dosha causes eighty types of Nanatmaka Vata [23]. Acharya Charaka and Acharya Vagabhatta depicted that *Samprati* (Pathogenesis) of *Vata vyadhi*, occurs due to *Dhatu kshaya* and *Marga avarodha* [24]. Vitiated *Vayu* aggravates and carries out other *dosha* through the channels to different places, producing different symptoms or diseases. Carried out vitiated *dosha* stagnant in the *Srotas* and obstructed the passages (*Sroto sanga*). *Vayu* gets obstructed or covered by *Kapha dosha* and produces derangements in speech channels, and as a result, Speech disorders will be produced [25]. Stiffness mainly happens due to *Kapha Avrita Vata dosha*. [26].

Table 2: Suitable Decoctions for Developed *Kampavata* Symptoms According to *Samprapti*

***Kampavata Samprapti) (Srotokhavaigunya/* Symptoms)**	**Cause/s**	**Suitable Properties of Decoctions**	**Suitable decoction**
Srotorodha (Sanga)	*Rasa: Madura (Sweet), Amla (Sour) and Kasaya (Astringen)*	*Rasa: Katu (Pungent), Tikta (Bitter) and Lavana (Salty)*	*Maharasnadi Kashaya* *Arkananthadi Kashaya* *Punarnawa Kashaya* *Dashamula mruthairanda Kashaya* *Brahmimundi Kashaya*
Dhatu kashya	*Mamsagata vata or Medogata vata*	*Rasa: Madura (Sweet)*	*Gandarvahasthadi Kashaya* *Prasarinyadi Kashhaya* *Mashatmagupthadi Kasaya*

Kampa	*Vata prakopa* *Tikta rasa (Bitter taste)*	*Rasa: Madhura (Sweet), Amla (*Sour*), Lavana (*Salty*)* *Virya: Ushna (Hot)* *Guna: Laghu (Light), Ruksha (Rough) and Tikshna (*Sharp*)*	*Gandarvahasthadi Kashaya, Mashatmaguptadi Kashaya*
Sthambha	*Kaphavruta Vyana vayu* *Gati sanga of Vata*	*Rasa: Katu (Pungent), Tikta (Bitter), Kashaya (Astringent),* *Virya: Ushna* *Guna: laghu (Light), Ruksha (Rough) and Tikshna (*Sharp*)*	*Maharasnadi Kashaya* *Arkananthadi Kashaya* *Punarnawa Kashaya* *Dashamulamruthairanda Kashaya,* *Brahmimundi Kashaya*
Speech disorder	*Gatisanga of Udana and Vyana vata (sub types of Vata dosha)* *Ruksha guna of Vata*		*Maharasnadi Kashaya* *Arkananthadi Kashaya* *Prasarinvadi Kashaya* *Bhrami mundi Kashaya*
Nocturia and Constipation	*Vitiation of Vyana vata (sub-type of Vata dosha)*	*Rasa: Madura (Sweet), Amla (*Sour*), Lavana (*Salty*)*	*Gandarvahasthadi Kashaya* *Mashatmagupthadi Kashaya*
Ama condition	*Madura rasa (Sweet taste foods)*	*Rasa: Katu (Pungent), Amla (*Sour*), Lavana (*Salty*)*	No decoction found among these have to give *Ama pachaana* decoction*)*

Main impact of the treatment is had to identify the samprapti whether it is *Srotorodha* or *Dhatu kshaya janya* ailment. Then only can be used the suitable decoction. Among the decoctions, *Maharasnadi Kashaya, Arkananthadi Kashaya, Punarnawa Kashaya, Dashamula mruthairanda Kashaya, Brahmimundi Kashaya, Gandarvahasthadi Kashaya, Prasarinyadi Kashaya, Mashatmagupthadi Kashaya* were identified to prescribe in the pathological conditions such as *Srotorodha (Sanga)* or *Dhatu kshya* and *Gandarvahasthadi Kashaya, Mashatmaguptadi Kashaya, Maharasnadi Kashaya, Arkananthadi Kashaya, Punarnawa Kashaya, Dashamulamruthairanda Kashaya, Brahmimundi Kashaya and Prasarinvadi Kashaya* to reduce the symptoms such as *Kampa* (tremor), *Sthambha* (stiffness), *Vag vikruti* (Speech disorder) and night time urination (nocturia) and *Vit vibandhata* (constipation). However, for *Ama* conditions, no decoction is mentioned under the *Vata vyadhi*. For *Ama pachana* and *Agni deepana* properties, another decoction under that particular criterion should be selected. Accordingly, the most suitable decoction can be selected for the sickness to get more results.

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.

CONCLUSION

Though the whole medicinal plant or part of the plant/s are used in Ayurveda decoctions, they have a scientific base to use according to pharmacodynamic properties. Hence, considering the pathology and symptoms, the most suitable decoction should be selected.

ACKNOWLEDGEMENT

Most profound appreciation is expressed to Y.G.N.M. Ambakumbura for gathering data for the study.

References

1. Vaidya Trikamji, J., Agnivesh- Charaka Samhita. 5th edition 2001, (Revised by Charaka and Dridhabala with the Ayurveda Dipika commentary of Chakrapanidatta), Chaukhambha Sanskrit Sansthan, Varanasi.

2. Sharma, C. G., (Translator), Vaidyavarashree Basavaraj, Basavarajeeyam, Vatavyadhi Nidana Lakshana Chikitsa, Chapter 6. 1978, Gorakshana Yantralaya Publication; Nagpur, Pune, India: Mudranalaya. P.100-101.

3. Goetz, C. G., The History of Parkinson's Disease: Early Clinical Descriptions and Neurological Therapies, Cold Spring Harbor Perspectives in Medicine. 2011. 1(1): doi: 10.1101/cshperspect. a008862).

4. Epidemiology of Parkinson's disease, Journal of Neural Transm (Vienna), 2017. 124 (8): p. 901-905. doi: 10.1007/s00702-017-1686-y. Epub 2017 Feb 1).

5. GBD Disease Incidence, Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2018. 392: p. 1789–858. doi: 10.1016/S0140-6736(18)32279-7, PubMed Abstract | Cross Ref Full Text | Google Scholar.

6. Wooten, G.F., et al., Are men at greater risk for Parkinson's disease than women? 2004. Journal of Neurol Neurosurg Psychiatry, 75: p. 637–639. [PMC free article] [PubMed] [Google Scholar]

7. Taylor, K.S., Cook, J.A., and Counsell, C.E., Heterogeneity in male to female risk for Parkinson's disease. 2007. Journal of Neurol Neurosurg Psychiatr. 78: p.905–906. 10.1136/jnnp.2006. 104695 [PMC free article] [PubMed] [CrossRef] [Google Scholar].

8. Deva, R. R., Shabda Kalpadruma. 1967. 04th Edition, Chaukambha Sanskrit Series Varanasi, P.325.

9. Singh, N., et al., An overview on Ashwagandha: A Rasayana (Rejuvenator) of Ayurveda. 2011. African journal of Traditional Complementary and Alternative Medicine, 8 (5 Suppl), p. 208-213.

10. Goshan, V., et al., Evaluation of neuro- protective activity of Brihatvata Chinthamani Rasa. The Journal of Phytopharmacology 2015. 4(4): p. 207-211.

11. Vangasena, S. N., vol.1 28/155 edition, 2004. Chaukhamba Krishnadas Academy, Varanasi, p. 409.

12. Gupt, K.A., Ashtanga Hridaya, Sutra Sthana 22/23-26, 2000. Chaukhamba Sanskruta Sansthana, Varanasi. P.134.

13. Ayurveda Pharmacopoeia, Volume 1, Part 1, 1976. Department of Ayurveda, Colombo. p. 86-115.

14. Kodikara, S.S., Kashaya Sagaraya, Vataroga Chikitsa, 1st edition, 1983. Department of Ayurveda, Sri Lanka.

15. Devamitta, G., Kashaya Sagaraya, Vataroga Chikitsa, 2nd edition, 1994. Samayawardhana press, Sri Lanka.

16. Samarasingha, D.H., Sarasankshepaya 1926, Sarasvathi Press, Colombo. p. 322-324.

17. Kumarasingha, A., et al., Sri Lanka Deshiya Chikitsa Sangrahaya, 1984. Sathosa Printers, Colombo, p. 641-656.

18. Katiyar, C.K., Safety Aspects of Ayurveda: International conclave on traditional medicine, 2006. Department of AYUSH, Ministry of Health and Family Welfare, Government of India, New Delhi, and NISCAIR, CSIR, New Delhi. P. 299-306

19. Sharma, R. K., Bhagwan Dash, V., Agnivesha, Charaka, Dridhabala, Charaka Samhita, Sutra Sthana, Atreyabhadrakapeeya Adhyana, 2009. Chaukhamba Sanskrit Series; Varanasi 26/28; p. 459.

20. Singhal, GD., 2007. Susruta, Nagarjuna. Susruta Sammhita, Sutra Sthana, Rasavisesha vijnaniya madhyayam, Chaukhamba Sanskrit Pratishthan; Delhi. 42/3; p. 340.

21. Gupta, K. A., Vridha Vagbhata, Astanga Samgraha, Rasabhediya Adhyaya, 2005. Chaukhamba Krishnadas Academy, Varanasi. 18/3; p. 147.

22. Paradakara, H.S.S., Laghu Vagbhata, Astanga Hridaya, Rasabhediya Adhyaya, 2010. Chaukhamba Surbharati Prakashan, Varanasi. 10/3; p. 175.

23. Tripathy, B., Charak Samhita. Vimana sthana 5/9. Vol. 1. 2013. Chaukhamba Surbharati Prakashan, Varanasi. p. 698.

24. Sharma PV. Charaka Samhita. Chikitsa sasthana vata vyadhi Chikitsa, Vol. 2. 28/38-39, 6th edition, 2001. Chaukhamba Orientalia, Varanasi. p. 464 - 465.

25. Shastri, A., Susruta Samhita, Part 1. Nidana sthana 1/67. 2010. Chaukhamba Sanskrit Sansthan, Varanasi. p. 303.

26. Shastri, A., Susruta Samhita, Part 1. Nidana sthana 1/88. 2010. Chaukhamba Sanskrit Sansthan, Varanasi. p. 305.

URL: http://dx.doi.org/10.14738/bjhmr.112.16811.