



Case Study

## AYURVEDIC MANAGEMENT OF KAMPAVATA

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### ABSTRACT

Kampavata is one among Vataja nanatmaja vyadhis. Acharya Charaka, Susruta, Vagbhata, Madhavakara, Kashyapa mentioned Kampavata as Vepathu. It can be correlated with "Tremors" in modern science which is the most common movement disorder. The total number of people suffering from ET worldwide was 24.91 million in 2020 and incidence increases with age. Kampa is the prominent feature in Kampavata which is categorized as Sarvanga-kampa and Shiro-kampa. Kampa occurs due to Prakopa of Chalaguna which is the inherent quality of Vata dosha. The management of essential tremors in the conventional system of medicine is decreasing quality of life of patient with certain side effects like fatigue, impotence, bradycardia, reduced blood pressure, drowsiness, nausea, dizziness, ataxia, confusion, vertigo, paresthesia etc. By Ayurvedic intervention patient quality of life can be preserved. In the present clinical study patient was treated with Snehana and Brmhana line of management in the form of Shirodhara, Nasya and Samana oushadies like Sarvamayantakaghrta etc. The outcome of the study revealed good therapeutic efficacy and patient got remarkable relief in symptoms, that are assessed by TRG Essential tremor rating assessment scale (TETRAS®) V 3.1.

### INTRODUCTION

As Kampavata is a Vata vyadhi, the causative factors for aggravation of Vata like Dhatukshaya and Margasya avarana are considered Nidana for Kampavata<sup>[1]</sup>. Vataprakopa affects Mastulunga majja in Shiras, causing Indriyahani<sup>[2]</sup>, and it also affects Snayu, resulting in Kampa<sup>[3]</sup>. Charaka mentioned Kaphavridhi causes Avarana of Vyana vata by Kapha causing Gatisanga, Guruta-sarvagatranam<sup>[4]</sup>, Avarana of Udana vata by Kapha causing Guru-gatrata, Vak-svaragraha, Aruchi, Dourbalya<sup>[5]</sup>, further Avarana of Udana avruta Vyana leads to Chestahani, Stabdhatata, Alpagni<sup>[6]</sup>. Susruta mentioned Kaphavridhi causes Avarana of Udana vata by Kapha causes Stamba, Mandagni<sup>7</sup>, Avarana of Vyana vata by Kapha causes Guru gatrata, Stamba at Asthi parvanam, Chesta stamba<sup>[8]</sup>. Charaka and Susruta mentioned Kampa, Stamba, Chestanasha,

Vakvikriti, Gatisanga in various clinical conditions but didn't mention all of these symptoms as a cluster in one clinical condition, they used the term Vepathu which is similar to Kampavata and explained it in the context of Vatavyadhi. Madhavakara was the first one who has used the word Kampavata but he had explained it under the term Vepathu and characterized it as Sarvanga kampa and Shirokampa<sup>[9]</sup>. Basavarajiyam has described in detail the symptoms of Kampavata. He explained two types of Kampavata lakashanas i.e., Sarvanga kampavata and Ekanga Kampavata. The symptoms include Karapadatala kampa, Dehabhramana, Nidrabhanga and Ksheenamati<sup>[10]</sup>, these provide the diagnostic clue regarding the disease "Tremors". Acharya Bhela, considered that Kampa develops as a result of Asthi-Majjagata Vata<sup>[11]</sup>. Kampavata being one of the Vatavyadhi, general line of treatment of Vatavyadhi can be adapted. Kampavata is well managed with Virechana, Vasti, Nasya, Murdhini taila prayoga along with Shamana drugs like Kapikachu, Ashwagandha, Bala, Rasna, Eranda, Tila, Shatavari etc.

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**CASE STUDY**

**MATERIALS AND METHODS**

**Place of study:** OPD & IPD department of Kayachikitsa, Dr.BRKR Government Ayurvedic Hospital and Research Centre, Erragadda, Hyderabad, Telangana, India.

**Chief Complaints**

A 42-year-old male with OPD number 3168 and IP number 42059 visited Dr. BRKR Government Ayurvedic Hospital and Research Centre, Erragadda, Hyderabad, complaining of involuntary movements of both upper limbs and head for 8 months.

**Associated Complaints**

Constipation for 1-year, slurred speech, and loss of sleep for 3 months.

**History of Present Illness**

The patient was apparently normal 8 months ago, but then he suddenly developed involuntary movements in both upper limbs and head, along with difficulty in holding objects, writing, and performing daily activities. Consequently, he came to GAH, Erragadda, Hyderabad, for treatment.

**Past History**

No H/o HTN, DM or other comorbidities, no surgical history.

**Family History**

No relevant family history

**Systemic Examination**

**Gastro Intestinal System-** No abnormality detected

**Respiratory System-** Chest bilaterally symmetrical

**Cardio Vascular System:** S1, S2 heard, No added sounds

**Table 1: Showing Higher Motor Function**

Conscious - Yes	Power – 5/5 in all limbs
Orientation to time, place, person- Intact	Coordination - Romberg sign- Positive
Memory – Recent – Intact Remote – Intact	Upper limb- Finger nose test- Able to perform (slowly)
Intelligence – Intact	Lower limb-Knee heel test – Able to perform
Hallucination & Delusion – Absent	Involuntary movements – Present Both upper limbs and head- Tremors
Speech - Mild slurring of speech present	Gait- Normal
Tone - Upper limbs – Normal Lower limbs - Normal	

**Table.2 Showing Personal history**

Appetite: Poor	Sleep: Disturbed
Bowel: Constipated, irregular	Diet: Mixed
Micturition: Normal	Addictions: Known alcoholic for 4 years Non-smoker

**Table.3 Showing Asta Sthana Pariksha**

<i>Nadi: Vata kaphaja</i>	<i>Shabdha: Prakruta</i>
<i>Mutra : Prakruta</i>	<i>Sparsha: Prakruta</i>
<i>Mala: Baddha</i>	<i>Drik: Prakruta</i>
<i>Jihwa: Amayukta</i>	<i>Akriti:</i> Tremors observed on performing daily activities

**Diagnostic Criteria**

TRG Essential Tremor Rating Assessment Scale (TETRAS©) V3.1 has been used as diagnostic criteria in which multiple daily activities like speaking, feeding with spoon, using keys etc. have been assessed and grading is done as per the activities of daily living subscale. Performance assessment like spirals, handwriting, dot approximation etc. is done as per the performance subscale<sup>[12]</sup>.

**Activities of Daily Living Subscale**

Scoring is 0-4

For each test item, rating = 0 when there is no visible tremor.

Total ADL score maximum is 48

**Performance Subscale**

Scoring is 0 – 4.

0.5 increments may be used  
All items of the examination, except standing tremor, are performed with the patient seated comfortably.  
The highest amplitude seen at any point during the exam is scored.

Patients are instructed not to suppress the tremor, but to let it come out.

For each test item, rating = 0 when there is no visible tremor.

Total Performance score maximum is 64.

Total TETRAS score maximum is 112

**Table 4: Showing treatment given**

Medication and Procedure	Dosage and Anupana	Route	Time period
<i>Maha Yogaraja guggulu</i>	500 mg twice a day after food	Oral	Day 1 to day 7
<i>Avipattikara churna</i>	3g twice a day before food with warm water	Oral	Day 1 to day 30
Sarvamayantaka ghrta	600mg×2 twice a day before food with warm water	Oral	Day 8 to day 30
<i>Nasya with Brahmi ghrta</i>	6 drops in each nostril	Nasal	Day 10 to day 16
<i>Shirodhara with Brahmi taila and Tila taila</i>	In the ratio of 1:4 respectively	External (over the head)	Day 24 to day 30

**Pathyapathya:** General *Vatavyadhi pathyaapathya* are advised.

**Treatment Period:** 30 days from 20/9/23 to 19/10/23

**Follow Up:** After 30 days

#### OBSERVATIONS AND RESULTS

#### Grading Of TRG Essential Tremor Rating Assessment Scale

##### A. Activities of Daily Living Subscale

S. No	Parameter	Before treatment	After treatment	After 30 days of follow up
1	Speaking	1	0	0
2	Feeding with a spoon	2	1	1
3	Drinking from a glass	2	1	1
4	Hygiene	2	1	1
5	Dressing	2	1	1
6	Pouring	2	1	1
7	Carrying food trays, plates etc	2	1	1
8	Using Keys	2	1	1
9	Writing	2	1	1
10	Working	2	1	1
11	Overall disability	2	1	1
12	Social impact	2	0	0
	<b>Total</b>	<b>23</b>	<b>10</b>	<b>10</b>

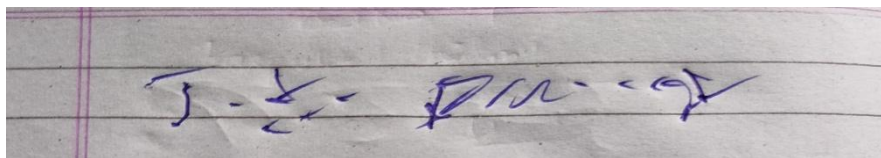
##### B. Performance Subscale

S.No	Parameters	Before treatment	After treatment	After 30 days of follow up
1	Head tremor	2	1	1
2	Face tremor	2	1	1
3	Voice tremor	2	0	0
4	Upper limb tremor	2	1	1

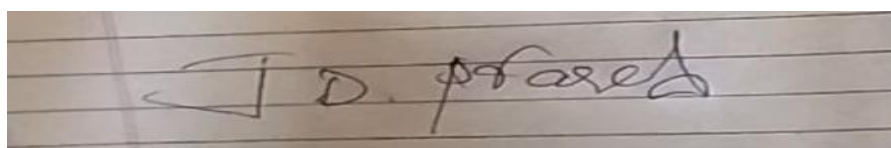
5	Lower limb tremor	0	0	0
6	Archimedes spirals	2	1	1
7	Hand writing	4	1	1
8	Dot approximation task	2	1	1
9	Standing tremor	0	0	0
	<b>Total</b>	<b>16</b>	<b>6</b>	<b>6</b>

### Image Showing His Handwriting Before and After Treatment

#### Before treatment



#### After treatment



## DISCUSSION

As *Kampavata* is a *Vatavyadhi*, *samanya chikitsa* of *Vata vyadhi* is adopted. In *Vatavyadhi*, *Vata* aggravates either by *Dhatukshaya* or *Margasya avarana*. In *Kapha avruta vata*, *Kaphagna* and *Vatanuloma* can be done. *Kapha avarana* is removed by *Deepana* and *Pachana* with *Mahayogaraja guggulu*. *Vatanulomana* is done with *Avipattikara churna*. In *Shirokampa Sneha*, *Sveda* and *Tarpana Nasya* can be done. So, *Shirodhara* with *Bramhi taila* and *Tila taila* and *Nasya* with *Brahmi ghrta* are done to alleviate *Vata dosha*.

*Brahmi* with its *Medhya* properties, alleviates the aggravated *Vata dosha*. The methanolic extract of *Bacopa monnieri* (BME) and its active component *Bacoside-A*, protect against oxidative stress in neurodegenerative diseases<sup>[13]</sup>. Hence *Brahmi taila* for *Shirodhara* and *Brahmi ghrta* for *Nasya* have been used.

*Shirodhara* is one among *Murdhni taila*. It stimulates *Sthapani*, *Shankha*, and *Utkshepa*, *Adipati* and *Avarta marma*. The continuous flow of warm liquid on the forehead for a long period will cause mild vasodilatation which improves the circulation and help in regularization of blood supply to the brain. Vibration along with temperature may activate the function of thalamus and the basal forebrain which then brings the amount of serotonin and catecholamine to the normal stage<sup>[14]</sup>. *Taila* is used as it is *Vatahara* but not *Kapha vardhaka* and it excels in curing *Vata roga* because of its *Vyavayi*, *Ushna*, *Guru* and *Sneha gunas*. *Shirodhara* is done with *Tila taila*. *Tila*, being *Ushna virya* used in treating *Kapha avruta vata*.

*Sarvamayantaka ghrta* is used in treating wide range of diseases as the name suggests *Sarva* (all) and *Amaya* (diseases) and *Antaka* (to end). It is indicated in *Shirokampa*, *Akshepaka*, *Shiroroga*, *Urusthamba*, *Karastamba* etc. The chemical constituents of *Sarvamayantaka ghrta* have neuroprotective properties and thus used in treating tremors. Quercetin, a flavonoid which is present in *Yastimadhu*, *Chandana*, *Aswagandha*, *Shatapushpa*, *Shatavari*, which are all part of *Sarvamayantaka ghrta* shows beneficial effects on the microenvironment of nervous tissue, modulating the inflammatory response, and minimizing oxidative stress, cell apoptosis<sup>[15]</sup>. Kaempferol, a flavonoid which is present in *Shatapushpa*, *Shigru*, *Shatavari* and its derivatives exert a neuroprotective role mainly by preventing the deposition of  $\alpha$ -synuclein<sup>[16]</sup>. The secondary metabolites  $\alpha$ - and  $\beta$ -asarone, found in high levels in the rhizomes of *Vacha* exert neuroprotective effects by mitigating oxidative stress, abnormal protein accumulation, neuroinflammation and neurotrophic factor deficit<sup>[17]</sup>. The hydrophobic property of Eugenol, a phenolic monoterpene present in *Sunthi*, *Tvak*, *Vacha*, *Shatapushpa* penetrates the blood-brain barrier and guards neuronal cells against N-methyl-D-aspartate (NMDA) induced oxidative and excitotoxic injury which contributes in neuroprotective potential in hippocampal tissues<sup>[18]</sup>. Beta Sitosterol, a phytosterol which is present in *Vidari kanda*, *Brihati* prevents oxidative damage and neurotoxicity and neuronal damage<sup>[19]</sup>. Spathulenol, a tricyclic sesquiterpenoid which is present in *Vacha* acts as neuroprotective<sup>[20]</sup>. Sesamin, a major lignan found in sesame seeds

promotes NGF-induced neurite outgrowth and synaptic connection via modulation of SIRT1 protein and exhibits neurotrophic and neuroprotective effects<sup>[21]</sup>. Ephedrine, a CNS stimulant present in *Bala*, have neuroprotective, antioxidant and central dopaminergic effects. Aqueous and hydroethanolic extracts of *Sida cordifolia* normalize dopamine levels and reduce lesions in midbrain<sup>[22]</sup>. *Withania Somnifera* (WS) extract of *Ashwagandha* has significant improvement in locomotor control and amelioration of oxidative parameters. Several Withanolides, including WS extract, Withanolides have important effects on stimulating neurite outgrowth and regeneration<sup>[23]</sup>.

*Mahayogaraja guggulu* is used in removing *Kapha avarana* by *Ama pachana*, *Deepana* and is very effective in all types of *Vata vyadhi*. *Guggulu* with its *Tiksna* and *Ushna* guna mitigates *Kapha* and *Vata* and by its *Sukshma guna* it stimulates *Agni*.

*Avipathikara Churna* is used for attaining the *Anuloma gati* of *Malas* and for the stimulation of *Agni*.

In *Nasya*, the drug administered through the nostrils reaches the *Shringataka marma* which is a *Shira marma* and spreads in the *murdha* through the *Siras* of *Nasa*, *Netra*, *Srotra* and *Kanta*. Removes the morbid doshas from *Urdhwajatru* and expels them from *Uttamanga*.

The mechanism of absorption of drug instilled through nasal route is transcellular process. It transports drug through olfactory mucosa by lipoidal route. Due to this reason *Snehana Nasya* has been described as best among all types of *Nasya*, as olfactory mucosa shows affinity towards lipophilic nature of *Sneha* which helps in proper absorption. The administered drug shows its action by passing into systemic circulation through vascular path or by stimulating the nerve endings in the mucosa.

## CONCLUSION

*Vatavyadhi* treatment principles like removing *Marga avarana*, *Sroto shodana*, *Vatanulomana* have shown effective results in the management of *Kampavata* not only by decreasing the signs and symptoms but also showed improvement in quality of life.

## Limitations of Study

Ayurvedic treatment is planned as per *Prakriti* and *Agnibala* of the patient. So, the study has to be conducted on large population for assessing the efficacy of intervention for better acceptance. *Kampavata* case requires long duration follow up for knowing the improved quality of life which is challenging.

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