

Ayurvedic Modalities and Shamana Chikitsa in the Management of Writer's Cramp Syndrome: A Case Report

MAHESH SHARMA¹, SOURABH DESHMUKH², TRUPTI THAKRE³, NITIKA SENGHER⁴



ABSTRACT

Writer's cramp syndrome is an uncommon handwriting disorder characterised by involuntary upper limb spasms and tremors in the hands. Most patients adopt unusual wrist and finger postures, using excessive force when holding and pressing the pen to the page; tremors commence during writing. Muscle spasms worsen with writing, often rendering the writing of more than a few sentences impossible. Numerous Vata dosha illnesses-Akshepaka, Apatantra, Apatanaka, and Kampavata-are associated with tremor in Ayurvedic literature. This case report evaluates the efficacy of Ayurvedic treatments for writer's cramp syndrome. A 30-year-old male patient, diagnosed with writer's cramp syndrome, showed significant improvement in writing and writing movements after one month of regular treatment. Ayurvedic treatments, including Shamana (curative treatment) and Shodhana (bio-purification treatment), played a significant role in managing the syndrome.

Keywords: Hand disorders, Muscle spasms, Vata dosha

CASE REPORT

A 30-year-old male patient presented to the Outpatient Department (OPD) with pain, stiffness, difficulty writing, and tremors in his right hand, symptoms present for one year. He reported being asymptomatic before the onset of these symptoms, which gradually worsened over the year. He had previously taken Diclofenac 100 mg and Gabapentin 100 mg, prescribed by a local doctor, providing temporary relief but without resolving the tremors. He subsequently sought treatment at this Ayurvedic hospital.

The patient had no history of hypertension, diabetes, thyroid dysfunction, tuberculosis, asthma, or allergies. Family and medical histories were unremarkable. He reported healthy personal habits, including a mixed diet, no addictions, good sleep patterns, and regular bowel movements.

Examination of Patient

Ashthavidha Pariksha (Eight folds of examinations) is presented [Table/Fig-1].

S. No.	Examination	Observation
1.	Nadi (Pulse rate)	76 times/minute, Vata pitta
2.	Mutra (Frequency of micturition)	4-5 times per day, samyak
3.	Mala (Bowel)	Regular, Prakrita
4.	Jihva (Tongue)	Niram
5.	Shabda (Sound)	Spashta
6.	Sparsha (Touch)	Anushnasheet
7.	Drik (Vision)	Prakruta
8.	Akriti (Body built)	Madhyam

[Table/Fig-1]: Ashthavidha Pariksha.

Dashavidha Pariksha (Ten folds of examination) is explained in [Table/Fig-2].

S. No.	Examination	Observation
1.	Prakruti (Constitution of the patient)	Vata-pitta
2.	Vikruti (Pathological variations)	Vatadosha, Sira, Kandra

3.	Sara (Quality of tissues)	Madhyam (Average)
4.	Samhana (Built of the body)	Madhyam (Average)
5.	Praman (Anthropometric measurements)	Weight: 60 kg, Height: 175 cm
6.	Satmya (Adaptability)	Madhyam (Average)
7.	Satva (Mental Strength)	Madhyam (Average)
8.	Aahar Shakti (Food intake and digestion capacity)	Madhyam (Average)
9.	Vyayam Shakti (Exercise capacity)	Avar (poor)
10.	Vaya (Stage of age)	Yuva Avastha (Young stage)

[Table/Fig-2]: Dashvidha Pariksha.

General examination findings were within the normal range: blood pressure 130/80 mmHg, respiratory rate 16/min, pulse 76/min, and temperature 98.6°F. Locomotor examination revealed tremors in the right hand [Table/Fig-3]. Haematological investigations, including a Complete Blood Count (CBC), Erythrocyte Sedimentation Rate (ESR), fasting blood sugar, and post-prandial sugar, were within normal limits. Subjective parameters assessed using a Visual Analogue Scale (VAS) included pain [1], stiffness in the right hand [2], and tremors in the right hand [3], along with a writing sample (name). Tremors were evaluated according to established criteria [Table/Fig-4]. The patient was diagnosed with writer's cramp

Inspection	Palpation	Range of movement
<ul style="list-style-type: none">Tremors in right handNo scar and no swelling observed	<ul style="list-style-type: none">No tendernessNo rise in temperature	<ul style="list-style-type: none">No restricted movement

[Table/Fig-3]: Locomotory examination.

Grading	Tremors [3]
0	No tremors
1	Mild tremors
2	Moderate tremors
3	Severe tremors

[Table/Fig-4]: Grading of tremors.

syndrome based on the signs and symptoms, specifically tremors occurring only during writing.

The patient was admitted for Ayurvedic treatment. Treatment followed *Vata vyadhi* principles, incorporating *Shodhana* treatment (bio-purification treatment) and *Shamana* treatment (curative treatment). [Table/Fig-5] details the *Shodhana Chikitsa* (bio-purification treatment) protocol, and [Table/Fig-6] describes the treatment procedure. *Basti* ingredients (medicated enema) are described separately [Table/Fig-7].

Basti Sequence: (Enema) [4]:															
A	N	N	A	N	N	A	N	N	A	N	N	A	N	N	A

[Table/Fig-5]: Shodhan Chikitsa.

N=Niruh basti (Medicated enema)

A=Anuvasan basti (oil enema)

S. No.	Procedure	Duration
1.	Purva Karma (pre-procedure): Local <i>Snehan</i> with <i>sahcharadi taila</i> in right hand Followed by <i>Shashtik shali pinda swedan</i>	15 days
2.	Pradhan Karma: (main procedure) <i>Anuvasan Basti: Panchtikta ghruta</i> (60 mL) <i>Niruha Basti: Erandmooladi</i> (350 mL) <i>Basti Pratyagamana kala</i> (retention time): <i>Anuvasan basti</i> : avg. 8-9 hours (Retention time) <i>Niruh basti</i> : avg. 15-20 mint • Local <i>Dhara</i> with <i>Dashmoola kwath</i> • <i>Nasya</i> with <i>anu tail</i> 8-8 drops both nostrile • <i>Patra pottali Swedan</i> at night	15 days
3.	Paschat Karma (after procedure): <i>upnah swedan</i> on right hand	30 days

[Table/Fig-6]: Shodhan Chikitsa.

S. No.	Basti	Ingredients	Dose	Days
1	Anuvasna basti (oil enema)	<i>Panchtikta ghruta</i>	60 mL	6 days
2	Niruha basti (medicated enema)	<i>Madhu</i> (Honey)- 40 mL <i>Saindhav lavan</i> (Rock salt) -10 gm <i>Sahcharadi taila</i> -50 mL <i>Shatpushpa churna kalka</i> (paste)-10 gm <i>Cap kapikachhu</i> -4 cap <i>Erandmooladi bharad kwath</i> (decoction)-200 mL Total quantity=310 mL		

[Table/Fig-7]: Basti contents.

Shaman Treatment (Curative Treatment)

[Table/Fig-8] describes the *Shaman* treatment.

The treatment was given for one month in total and [Table/Fig-9,10] describes the improvement seen in the assessment parameters.

S. No.	Medications (Orally)	Dose	Anupan and frequency	Duration
1.	<i>Cap kseerabala 101</i>	500 mg	1 cap twice a day after food with water	1 month
2.	<i>Panchtikta ghruta guggulu tab</i>	500 mg	2 tab twice a day after food with water	1 month
3.	<i>Ajamansa Rasayan</i>	2 tsf	Twice a day after food with water	1 month
4.	<i>Guduchi ghan vati</i>	500 mg	2 tab twice a day after food with water	1 month
5.	<i>Tab Shallaki XT</i>	500 mg	1 tab twice a day after food with water	1 month
6.	<i>Cap kapikacchu</i>	500 mg	1 cap twice a day after food with water	1 month

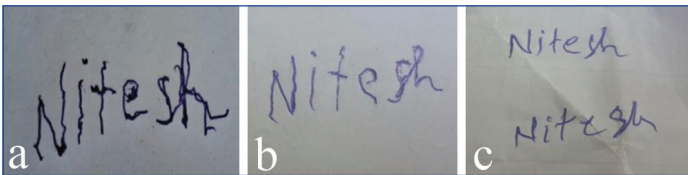
[Table/Fig-8]: Shaman treatment.

DISCUSSION

In *Samprapti* (pathogenesis), *Vata* is triggered by *Avarana* (covering of *dosha* and *Dhatu*) and *Dhatukshaya* (destruction

S. No.	Assessment parameters	Before treatment	After treatment
1.	Pain assessment	4	0
2.	Tremors	3	0
3.	Time taken for writing name	15 second	4 second
4.	Stiffness	Grade 2	Grade 0

[Table/Fig-9]: Before and after results for the assessment parameters.



[Table/Fig-10]: Results in name writing by the patient before treatment and after treatment: a) Before treatment; b) After 15 days of treatment; c) After 30 days of treatment.
This is not the patient's name; it has been randomly selected solely for writing assessment conducted before and after treatment

of *Dhatu*) [5]. Writing tremors exemplify this, manifesting as increased tremors or movement during writing. According to *Acharya Sushrut*, irritated *doshas* spread throughout the body, causing illness wherever they obstruct a channel, leading to widespread pathogenesis [5]. The vitiated *Vata dosha*, settling in empty pathways, is the source of the illness. Here, the *Vata dosha* settles in the hand's *sira*, *snayu* (ligament), and *kandaras* (tendons) during writing, causing the tremors. Several studies suggest writing tremors are a variant of essential tremor [6,7]. The patient's response to medications may be related to essential tremor, given its responsiveness to propranolol, as seen in some writer's cramp syndrome case studies [8]. Reduced inhibition of intracortical circuits may also contribute to the development of writing tremors [9].

Writing tremor is a task-specific tremor limited to writing. Modern science currently lacks a precise understanding of the pathophysiology and a specific treatment course. It is an uncommon condition with tremor as the primary symptom. Its pathogenesis can be understood by studying disorders in Ayurvedic texts where tremor is a key characteristic, as diagnosed using symptoms described in a review study by Karigar SB et al., [10]. While Ayurvedic case studies on managing writer's cramp syndrome are limited, a review by Karigar SB et al., provides valuable insights [10]. This case aims to promote Ayurvedic treatment by providing a treatment protocol and demonstrating successful management of writer's cramp syndrome. Ayurveda employs *Shamana chikitsa* (curative treatment), addressing imbalances in the three humours, and *Shodhana* treatment (biopurification treatment), involving purification processes to remove doshas from their source. *Shodhana* therapy (bio-purification treatment), such as *Basti* (medicated enema) or *Nasya*, can treat *Vata dosha*, specifically *Chalatva* (constant movement), causing the tremor in writer's cramp. To control *Chalatva Guna* (quality of constant movement) of *Vata*, drugs with *Ushna* (hot) and *Brihan* (nourishing) properties are used. Primary therapies for *Vata dosha* are *snehana* (oleation) and *swedana* (sudation) [11].

Swedana (Sudation): *Swedana* (Sudation) reduces stress and stiffness in bones, joints, and *Siras* (arteries) [12]. Oleation and sudation were administered. *Swedana* improves venous blood drainage and local blood flow, aiding waste removal. It generates local heat, increasing microvasculature metabolism and localised lymphatic and vascular perfusion [13]. *Shashtik Shali Swedan* provides heat and reduces pain. *Swedana* increases skin permeability, facilitating medication absorption [14].

Basti (Enema): Under *Nabhi Pradesh* (the umbilical area), reduces *Vata dosha*. The hypo-osmotic solution of *matrabasti* (oil enema) and other enemas facilitates blood absorption.

Removing morbid contents from the large intestine impacts the entire body due to the interconnectedness of cells and tissues [15].

Nasya (medication through the nostril) with *anu taila* (oil) treats *Urdhavyatragata roga* (diseases above the neck region), affecting the brain to reduce *Vata vyadhi* and tremors [16].

Panchatikta Ghrita Guggulu tablets were administered to enhance *asthidhatu* (bone and tissue). *Tiktatasa* (bitter taste) increases blood supply to the affected area and acts on *Vata shamana* (air pacification). It targets body aspects sharing *Asthidhatu's mahabhautikatva* (bony elements). *Ghrita* (ghee) is *vatashamaka* (*Vata* pacifier) and *balya* (increases body strength), revitalising the body and balancing *Vata*. *Ghrita* enhances the bioavailability of other medications [17].

Cap Ksheerabala 101: Bala, the primary ingredient, is a potent neuroprotective herb easing pain, nerve inflammation, and muscle stiffness [18].

Ajamansa Rasayan, mentioned in *Sahasrayoga* in *Parishishta prakarana Taila-Ghruta*, includes drugs like *Dashmool*, *Rasna*, and *Jeevaniya Gana*. These have *Vatahar* (*Vata* pacifying), *Balya* (body strengthening), and *Brihan* (nourishing) properties due to their *Sneha Guna* (unctuousness) [19].

Guduchi ghan vati, an immunity booster, aids recovery and provides anti-inflammatory and antibacterial action [20].

Tab Shalaki XT: *Boswellia serrata* (*salai guggul*) treats joint pain, stiffness, and inflammation. *Eranda mool* (*Ricinus communis* root) reduces inflammation, swelling, and joint pain. It also improves digestion and bowel movements. *Guduchi* (*Tinospora codifolia*) modulates immune function and treats gout, inflammation, and autoimmune diseases [21].

Cap Kapikacchu (Mucuna Pruriens): Stimulates L-Dopa secretion, converting to dopamine to reduce tremors [22].

CONCLUSION(S)

Significant clinical improvement was observed after one month of treatment. The VAS scale showed reduced pain. Assessment parameters also showed considerable improvement. This case study suggests Ayurvedic treatment is a viable option for managing writer's cramp syndrome.

Declaration of Patient Consent

The authors confirm obtaining necessary consent from the patient. Permission was granted for publication of photos and clinical data. While efforts will be made to maintain anonymity, complete privacy cannot be guaranteed.

Glossary

Shamana chikitsa: Curative treatment

Shodhana chikitsa: Bio-purification treatment

Purva Karma: Pre procedure

Pradhan Karma: Main procedure

Basti Pratyagaman kala: Retention time

Niruh basti: Medicated enema

Anuvasan basti: Oil enema

Kwath: Decoction

Samprapti: Pathogenesis

Dhatukshaya: Destruction of *Dhatu*

Sheeta guna: Cold quality

Ruksha guna: Dryness quality

Ekdesa Vriddhi: Increase dosh at one place

Snayu: Ligament

kandaras: Tendons

Chala: Constant movement

Ushna: Hot quality

Brihan: Nourishment

Snehana: Oleation

Swedana: Sudation

Nabhi Pradesh: The umbilical area

Basti: Enema

Urdhavyatragata roga: Disease above the neck region

Asthidhatu: Bone and tissue

Tiktatasa: Bitter taste

Vata shamana: Air pacify

Vatashamaka: *Vata* pacifier

Balya: Increases body strength

Brihan: Nourishment

REFERENCES

- [1] Begum MR, Hossain MA. Validity and reliability of visual analogue scale (VAS) for pain measurement. *Journal of Medical Case Reports and Reviews*. 2019;2(11):394-402.
- [2] Juyal R, Mahajan K, Tiwari A, Agrawal AK. Management of Avabahuka with Prasarni Taila Nasya and Sthanik Patra Pinda Swedana-A case study. *J Ayurveda Integr Med Sci*. 2024;9(5):291-95.
- [3] Mandal S, Sawarkar P, Singh V, Parwe S, Sawarkar G. Management of Kampavata (Parkinson's Disease) through Panchakarma: A successful case study. *Journal of Pharmacology and Pharmacotherapeutics*. 2024;15(3):362-68.
- [4] Lohith BA. A comparative clinical study on *kala basti* schedule in the management of *Gridhrasi* (Doctoral dissertation, Rajiv Gandhi University of Health Sciences (India)).
- [5] Charaka A, Charakasamhita C. chapter 16 Panduroga Chikitsa, shloka no. 9-11, edited with Charaka Chandrika Hindi commentary by Dr. Brahmanand Tripathi. Varanasi: Chaukhambha Surabharati Prakashana; 2014.
- [6] Kubota Y, Murai T, Okada T, Hayashi A, Toichi M, Sakihama M, et al. Obsessive-compulsive characteristics in patients with writer's cramp. *J Neurol Neurosurg Psychiatry*. 2001;71(3):413-14.
- [7] Tacik P, Schrader C, Weber E, Dressler D, Albert Schweitzer: A patient with writer's cramp. *Parkinsonism Relat Disord*. 2012;18(5):453-57.
- [8] Jiménez-Jiménez FJ, Cabrera-Valdivia F, Ortí-Pareja M, Gasalla T, Tallón-Barranco A, Zurdo M. Bilateral primary writing tremor. *Eur J Neurol*. 1998;5(6):613-14.
- [9] Modugno N, Nakamura Y, Bestmann S, Curra A, Berardelli A, Rothwell J. Neurophysiological investigations in patients with primary writing tremor. *Mov Disord*. 2002;17(6):1336-40.
- [10] Karigar SB, Bellamma S, Shyamarao SP. An Ayurvedic perspective on primary writing tremor: Primary writing tremor. *J of Ayurveda and Hol Med (JAHM)*. 2023;11(5):45-55.
- [11] Harish Vd, Kushwaha CS, editors. Charaka Samhita. 28th Adhyaya 93rd shloka Chikitsasthana. 1st ed. Varanasi: Chaukhambha Sanskrit Sansthan; reprinted 2018; 2009. p. 749.
- [12] Shirota H, Goto M, Katayama K. Application of adjuvant-induced local hyperthermia for evaluation of anti-inflammatory drugs. *J Pharmacol Exp Ther*. 1988;247(3):1158-63. PMID: 3264574.
- [13] Petrofsky J, Berk L, Bains G, Khowailed IA, Hui T, Granado M, et al. Moist heat or dry heat for delayed onset muscle soreness. *J Clin Med Res*. 2013;5(6):416-25. Doi: 10.4021/jocmr1521w; PMID: 24171053.
- [14] Ibidem 4, Charaka Samhita, Sutra sthan?14/25, pp. 26.
- [15] Rajesh DK, Priyanka S, Alok SK. A critical review on clinical aspect of Matra Basti in Vataja disorders. *J Ayurveda Integr Med Sci*. 2018;3(05):164-67.
- [16] Agarwal R, Rani M. Significance of Nasa & Nasya—a critical review. *Punarnav*. 2014;2(1):1.
- [17] Kumar S, Mangal G. Pharmacodynamics of Panchatikta Guggulu Ghrita in Asthimajjagata Vata with special reference to avascular necrosis of femoral head. *World J Pharm Sci*. 2022;10(8):16-19. Available from: <https://doi.org/10.54037/WJPS.2022.100801>.
- [18] Verma J, Mangal G. New perspectives of Ksheerabala Taila (oil): A critical review. *International Journal of Ayurveda and Traditional Medicine*. 2019;1(1):24-30.
- [19] Ali MO. Rasayana therapy in classical literature of Ayurveda: A review. *Bull Indian Inst Hist Med Hyderabad*. 1998;28:95-110.
- [20] Prajwala B, Raghu N, Gopenath TS, Basalingappa KM. Guduchi: Its medicinal properties. *J Plant Physiol Pathol*. 2019;3:2.
- [21] Mohan M, Sawarkar P. Ayurvedic management of Gridhrasi with special respect to sciatica: A case report. *J Indian Sys Medicine*. 2019;7(2):131-38.
- [22] Ramdhan JS, Pankaj K. KAPIKACCHU (*Mucuna pruriens*)- A Ayurvedic drug review. *World J Pharm Sci*. 2015;3(10):1999-2003.

PARTICULARS OF CONTRIBUTORS:

1. Postgraduate Scholar, Department of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
2. Professor, Department of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
3. Assistant Professor, Department of Kaumarbhritya, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.
4. Postgraduate Scholar, Department of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Mahesh Sharma,

Postgraduate Scholar, Department of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital and Research Centre, Salod, Hirapur, Wardha-442001, Maharashtra, India.

E-mail: maheshkumarsharma369@gmail.com

PLAGIARISM CHECKING METHODS: [\[Jain H et al.\]](#)

- Plagiarism X-checker: Aug 08, 2024
- Manual Googling: Jan 14, 2025
- iThenticate Software: Jan 16, 2025 (2%)

ETYMOLOGY: Author Origin

EMENDATIONS: 6

AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

Date of Submission: **Aug 07, 2024**

Date of Peer Review: **Nov 26, 2024**

Date of Acceptance: **Jan 18, 2025**

Date of Publishing: **May 01, 2025**