Effect of Agnikarma with Tapta Guḍa in the Management of Manibandha Sandhisthita Snayugata Vata w.s.r. Carpal Tunnel Syndrome – A Case Study

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***Abstract*—Pain is an unpleasant sensory and emotional experience often associated with tissue injury or nerve compression. Carpal Tunnel Syndrome (CTS) is the most common entrapment neuropathy of the upper extremity caused by compression of the median nerve within the carpal tunnel at the wrist. Clinically, it presents with pain, numbness, tingling, and restricted wrist movements. In Ayurvedic terms, the structures involved in CTS correspond to *Snayu*, and the condition can be correlated with *Snayugata Vata* affecting the *Manibandha Sandhi*. Classical management of *Snayugata Vata* includes *Snehana*, *Swedana*, *Upanaha*, and *Agnikarma*. Among these, *Agnikarma* is renowned for its *Sheeghrakaritva* (quick action) and *Apunarbhavatva* (non-recurrence). For *Snayu*, *Sira*, *Asthi*, and *Sandhigata Vikaras*, *Snigdha Dravyas* such as *Kshoudra*, *Guda*, *Taila*, *Vasa*, and *Madhuchishta* are advocated as *Dahanopakarana*. In the present clinical study, *Agnikarma* using *Tapta Guda* (molten jaggery) was applied by *Bindu Dahana* technique over the most tender points at the wrist. Assessments were done on the 0th, 7th, 14th and 21st day using pain (VAS), paraesthesia grading, Phalen's and Tinel's tests. The results showed a marked reduction in pain and paraesthesia with improved hand function. No adverse effects or scarring were observed. The study concludes that *Agnikarma* with *Tapta Guda* is a safe, cost-effective, and cosmetically acceptable procedure that provides significant symptomatic relief in Carpal Tunnel Syndrome.**

***Index Terms*—Agnikarma, Tapta Guda, Snayugata Vata, Manibandha Sandhi, Carpal Tunnel Syndrome, Dahanopakarana.**

I. INTRODUCTION

Carpal Tunnel Syndrome (CTS) is an entrapment neuropathy caused by compression of the median nerve within the carpal tunnel of the wrist. It presents with tingling, numbness, and paresthesia over the lateral three and a half fingers supplied by the median nerve, accounting for nearly 90% of all peripheral neuropathies. [1,2] The condition is progressive and can significantly impair hand function and quality of life. Occupations involving repetitive wrist movements or exposure to vibration, such as computer professionals and construction workers, are particularly predisposed. [2] In India, the prevalence of CTS is reported between 2.7% and 5.8% in the general population. [3] Conventional management includes anti-inflammatory drugs, corticosteroids, physiotherapy, and surgical decompression. However, these approaches are often associated with recurrence, adverse effects, and postoperative complications. [4]

In Ayurvedic context, the tendons, ligaments, and nerves involved in CTS correlate with *Snayu*, and the condition can be understood as *Manibandha Sandhigata Snayugata Vata*. Classical management for *Snayugata Vata* includes *Snehana*, *Swedana*, *Upanaha*, and *Agnikarma*. [5] Among these, *Agnikarma* stands out for its *Sheeghrakaritva* (instant action) and *Apunarbhavatva* (non-recurrence). [6]

Snigdha Dravyas such as *Kshoudra*, *Guda*, *Taila*, *Vasa*, and *Madhuchishta* are advocated as *Dahanopakarana* for disorders of *Snayu*, *Sira*, *Asthi*, and *Sandhi*. [6] Compared to *Panchadhatu Shalaka*, *Guda* possesses higher latent heat and uniform heat

distribution, offering deeper penetration with minimal scarring.

Hence, the present study was undertaken to scientifically validate the therapeutic efficacy of *Guda* as a *Dahanopakarana* in *Agnikarma* for CTS.

II. AIM AND OBJECTIVE

To evaluate the efficacy of *Guda* as *Dahanopakarana* for the management of *Manibandha Sandhisthita Snayugata Vata* w.s.r. to Carpal Tunnel Syndrome.

III. MATERIALS AND METHODS

- *Guda*
- Borosil glass pipette
- Stove
- Sterile Laddle
- Mixture of *Madhu-Sarpi* (Equal quantity)
- Sterile cotton balls

Properties of Guda

Table 1: Properties of Guda

SUSRUTHA SAMHITHA [7]	BHAVAPRAKASHA NIGHANTU [8]	MADANAPHALA NIGHANTU [9]
Madhura Sakshara Snigdham Natiseetam Natipittaghna Mootrala Balya Vrsya Rakta Sodhana	Snigdham Saram Natipittaghnam Kaphakaram Balya Vrsya	Madhura Sakshara Snigdha Sara Balya Agnikrut Rakta Sodhana

- ✓ Time taken for heating *Guda* was 19 sec and temperature was 115- 120ºC.
- ✓ On removing the heat source and during transferring time the heat dissipation was 0^0C for one-minute, gradual dissipation of temperature was noted at a rate of 2ºC to 3ºC per minute.
- ✓ After the short initial duration there was a gradual and almost constant dissipation of heat about 5ºC to 7ºC

Intervention

Preparation of *Guda* for *Agnikarma*

- *Guda (*q.s*)* is taken in a bowl and sufficient quantity of water will be added and heated until froth appears and attains temperature up to 115 degree Celsius.

Agnikarma Procedure

- Patient was allowed to sit comfortably and instructed to extend the elbow and wrist.
- Most tender points was marked using a pen or marker.
- *Guda* was heated in sterile laddle and using a Borosil Pipette. *Guda* was sucked and dropped over the marked points from a height of 1 cm.
- It was wiped off immediately using sterile cotton balls anointed with *Madhu-Sarpi*

Table 2: Subjective symptoms assessed before and after the *Guda Agnikarma* was as mentioned in the table.

ASSESSMENT CRITERIA	BEFORE TREATMENT (0^{TH} DAY)	7^{TH} DAY	14^{TH} DAY	21^{ST} DAY
PAIN [10]	7	3	2	1
PARAESTHESIA [11]	Grade 2	Grade 2	Grade 1	Grade 1
RESTRICTED WRIST MOVEMENTS [12]	Mildly restricted	Mildly restricted	Mildly restricted	Mildly restricted

BOSTON'S QUESTIONNAIRE [13]	Before Treatment (0^{th} day)	7^{th} day	14^{th} day	21^{st} day
Writing	3	3	2	1
Buttoning of clothes	3	2	2	1
Holding books	2	2	2	1
Gripping telephone	4	3	2	1
Opening jars	3	3	2	1
Carrying of grocery bags	4	4	3	2

Table 3: Objective symptoms assessed before and after the *Guda Agnikarma*.

ASSESSMENT CRITERIA	BEFORE TREATMENT (0^{TH} DAY)	7^{TH} DAY	14^{TH} DAY	21^{ST} DAY
TENDERNESS [14]	2	1	1	0
PHALEN'S TEST & TINEL'S TEST [1]	Positive	Positive	Negative	Negative

IV. RESULTS

Complete reduction of Symptoms was achieved within 4 sittings of *Guda Agnikarma*.

V. DISCUSSION

Carpal Tunnel Syndrome (*Manibandha Sandhisthita Snayugata Vata*) is a *Vata Pradhana* disorder characterized by *Sira-Snayu-Sandhi* involvement, resulting in *Shoola* (pain), *Supti* (numbness), and *Sparsha Asamarthata* (altered sensations) at the wrist and fingers. In CTS, mechanical compression of the median nerve within the carpal tunnel leads to ischemia, inflammation, and edema, producing characteristic neuropathic pain and paresthesia.

The procedure of *Agnikarma* provides immediate and sustained relief through the *Ushna*, *Tikshna*, *Sukshma*, and *Ashukari Guna* of *Agni*, which pacify *Vata* and alleviate *Srotavarodha*. When *Guda* is used as *Dahanopakarana*, its *Snigdha* and *Mridu* qualities allow controlled heat transmission and deeper tissue penetration without causing blistering or scarring. This mild, uniform thermal stimulus acts on *Snayu* and *Sira*, reducing stiffness and improving the elasticity of the connective tissue.

Mode of action:

PAIN AND TENDERNESS [16]

- ✓ *Agni* possesses *Ushna*, *Sukshma*, *Tikshna*, *Aashukari Guna* which are opposite to *Vata* and *Kapha Dosha*. These *Gunas* of *Agni* help in the deeper penetration of heat so that it reaches *Snayu* and together reduces the pain through the process of *Vata Samana*.
- ✓ Heated *Guda* with a high latent heat capacity, stimulates the sensory receptors, and afferent nerves stimulated by heat may have an analgesic effect by acting on the gate control mechanism in the body.
- ✓ *Agnikarma* increases the *Rasa Rakta Samvahana* to affected site. The excess blood circulation to the affected part flushes away the pain producing substances and gets relief from symptoms.

PARESTHESIA: [15]

- ✓ Due to *Usna, Tikshna guna* of *agni*, removes the *sroto avarodha* and increases the circulation.
- ✓ Due to *usna guna* of *agni* it also causes relaxation of the surrounding muscles and ligaments thus relieving the symptom.
- ✓ Heat increases nerve conduction velocity, improves microcirculation, reduces ischemia of the median nerve, and relieves tingling/numbness.

RESTRICTED MOVEMENTS [16]

- ✓ Restriction of movement (S*tambha*) occurs due to *Kapha-Vata Avarana* in S*nayu.* The U*sna* property of *Agnikarma* alleviates stiffness and restores mobility.
- ✓ The *Ushna Guna* of *Agni* which does *Vata Samana*, increases the elasticity of the tendon and reduction of pain while movements. The heat also relaxes the muscles, relieving the stiffness and increasing the range of movements
- ✓ Heat improves collagen elasticity, reduces muscle/tendon stiffness, increases joint range of motion, and facilitates functional recovery.

BOSTON'S QUESTIONNAIRE:

- ✓ Improvement in V*yadhi Lakshanas* (symptoms) reflects restoration of D*osha-Samyata* and S*rotoshodhana* by *Agnikarma.*
- ✓ By reducing pain, paresthesia, and stiffness, *Agnikarma* enhances hand function and daily activities, reflected in better questionnaire scores

The results of this study demonstrated a consistent reduction in pain and paresthesia, negative *Phalen's* and *Tinel's* signs, and improvement in boston's questionnaire scores, confirming both symptomatic and functional recovery. Thus, *Guda Agnikarma* provides an effective, safe, and cosmetically acceptable alternative to conventional treatments for Carpal Tunnel Syndrome, combining the classical Ayurvedic principles of *Vata Shamana* and *Srotoshodhana* with a modern physiological basis of thermotherapy.

VI. CONCLUSION

Agnikarma with *Tapta Guda* was found to be highly effective in relieving pain, paresthesia, and functional impairment in *Manibandha Sandhisthita Snayugata Vata* (Carpal Tunnel Syndrome). The procedure provided rapid and sustained symptomatic relief without scarring or adverse effects. The *Ushna*, *Tikshna*, and *Sukshma Guna* of *Agni*, along with the *Snigdha* and *Mridu* qualities of *Guda*, facilitated deeper tissue penetration, improved local circulation, and pacified vitiated *Vata*. This simple, safe, and cost-effective technique offers a promising conservative management option for CTS, minimizing recurrence and enhancing patient comfort. Further controlled studies with larger sample sizes are recommended to substantiate these findings and establish standardized protocols for *Guda Agnikarma.*

Fig 1 tender points marked

Fig 2 guda was heated

Fig 3 Guda was heated until it reaches a temperature not more than 120 degree celsius

Fig 4 Guda was dropped from a height of 1 cm.

Fig 5 Mixture of Guda and Madhu applied after Agnikarma

REFERENCES

[1] Sriram BM. SRB's Manual of Surgery. 7th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2023.

[2] Sevy JO, Varacallo M. Carpal Tunnel Syndrome [Internet]. PubMed. Treasure Island (FL): StatPearls Publishing; 2023 [cited 2023 Aug 30]. Available from: https://pubmed.ncbi.nlm.nih.gov/28846321/

[3] Sodani A, Dani R, Dube M, Choukesey D, Athale S. Determinants of Remission in Medically Treated Carpal Tunnel Syndrome: Study from Central India. Annals of Indian Academy of Neurology [Internet]. 2018 [cited 2023 Sep 3];21(1):29–34. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5909142/#ref1

[4] Samaranayake G, Chandimal KM. Management of Carpal Tunnel Syndrome by Agnikarma-A Case Study . International journal of recent innovations in medicine and clinical research [Internet]. 2020 Sep 18 [cited 2023 Aug 24];2(3):151. Available from: https://www.researchgate.net/publication/344832071_Management_of_Carpal_Tunnel_Syndrome_y_Agnikarma-_A_Case_Study

[5] Susrutha. Susrutha Samhitha of Acharya Susrutha. translated by Prof KR Srikantha murthy,Chikitsa Sthana. Reprint 2010th ed.Vols. 2 Chapter 4. Varanasi: Chaukambha Orientalia ;2010. p.57

[6] Susrutha. Susrutha Samhitha of Acharya Susrutha. translated by Prof KR Srikantha murthy, Sutra Sthana. Reprint 2008th ed.Vols.1 Chapter 12. Varanasi: Chaukambha Orientalia ;2010. p.70

[7] Susrutha.Susrutha Samhita of Acharya Susrutha. translated by Prof KR srikantha murthy, Sutra Sthana. Reprint 2008 th ed.Vols. 1 Chapter 45. Varanasi: Chaukambha Orientalia ;2010. p.357

[8] Sri Bhavamisra.Bhavaprakasha nighantu [Internet]. niimh.nic.in. [cited 2023 Sep 10]. Chapter 23, Verse 25-26 Available from: https://niimh.nic.in/ebooks/eNighantu/bhavaprakashanighantu/?mod=read

[9] Madanaphala nighantu [Internet]. niimh.nic.in.Chapter 9 Verse 21-22 [cited 2023 Sep 10]. Available from: https://niimh.nic.in/ebooks/e-Nighantu/madanapalanighantu/?mod=read

[10] Haefeli M, Elfering A. Pain assessment. Eur Spine J. 2006;15 Suppl 1(S1): S17-24

[11] Padua L, Padua R, Monaco ML, Aprile I, Tonali P. Multiperspective assessment of carpal tunnel syndrome: A multicenter study. Neurology [Internet]. 1999 Nov 1 [cited 2020 Mar 6];53(8):1654–4. Available from: https://pubmed.ncbi.nlm.nih.gov/10563608/22

[12] Range of Joint Motion Evaluation Chart NAME OF PATIENT CLIENT IDENTIFICATION NUMBER [Internet]. Washington State Department of Social and Health Services. Washington: The Department of Social and Health Services is Washington's social services department.; [cited 2023 Sep 6]. Available from: https://www.dshs.wa.gov/sites/default/files/forms/pdf/13-585a.pdf

[13] Sirisena D, Lim I, Sim S, Tong PY, Rajaratnam V. Can the Boston Carpal Tunnel Syndrome Questionnaire Be Used as a Screening Tool Among a Potentially High-Risk Population in Singapore? Journal of Hand and Microsurgery [Internet]. 2020 May 2 [cited 2023 Aug 20];14(01):39–46. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8898153/

[14] Tenderness Grading PDF | PDF | Medical Specialties | Musculoskeletal System [Internet]. Scribd. [cited 2023 Sep 7]. Available from: https://www.scribd.com/document/436499494/Tenderness-Grading-pdf

[15] Dudhamal T, Gupta S, Mahanta V, Kumar Jv. A comparative clinical study of Siravedha and

Agnikarma in management of Gridhrasi (sciatica). AYU (An International Quarterly Journal of Research in Ayurveda). 2014;35(3):270. Available from: https://pubmed.ncbi.nlm.nih.gov/26664236/

[16] Parvathy MG, Padma, K M Sweta. Madhu Agnikarma in the pain management of Tennis Elbow - A Case Study. J Ayurveda Integr Med Sci [Internet]. 2022 Nov. 3 [cited 2025 Oct. 5];7(9):216-20. Available from: https://jaims.in/jaims/article/view/2095