



Case Series

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AYURVEDIC MANAGEMENT OF STENOSING TENOSYNOVITIS A VIS-À-VIS TRIGGER FINGER: A CASE SERIES

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ABSTRACT

Background: Stenosing tenosynovitis, popularly known as trigger finger, is a clinical condition characterized by painful digit locking during flexion and extension. Trigger finger can develop from any activity that requires prolonged, forceful finger flexion, such as carrying shopping bags or prolonged writing. Once it starts hindering day-to-day activities, it can lead to complete hand deformity. This condition can be correlated to Snayugata Vata, which has clinical features like Stambha (stiffness), Kampa (tremors), Shoola (pain), and Snayu Sankoch (constriction of tendons/ligament). **Case History:** Three patients presented with painful locking of multiple fingers, tenderness at the metacarpophalangeal joint, and restrictions in performing daily activities. They consulted a local hospital and underwent a course of NSAIDs but did not feel much relief. They were further advised to undergo surgery, but the patients hesitated due to its invasive nature, higher cost, low success rate, and potential for recurrence. They sought Ayurvedic treatment as an alternative, which was planned for Taila dhara and Dashanga kumari upnaha for 7 days to reduce Shula, Shotha (inflammation), and Sthamba while strengthening Snayu. The severity of the condition was assessed using Quinell's grading system and the Visual Analogue Scale (VAS) for pain. **Results:** After treatment, a significant decrease in VAS scores and Quinell's triggering scores was observed, along with symptomatic relief, indicating successful treatment of trigger finger with Bahirparimarjana chikitsa.

Keywords: Trigger finger, Snayugata Vata, Sthanik Tailadhara and Dashanga kumari Upnaha

INTRODUCTION

The fingers play a crucial role in our day-to-day activities, such as writing, typing, and cooking. Any deformity or impairment in the fingers can significantly threaten a person's ability to perform their occupation effectively. One such deformity is trigger finger, caused by the development of a nodule in the flexor tendon of the hand or thickening of the A1 pulley at the front of the metacarpal neck¹. The lifetime risk of developing trigger finger is 2-3%, but it increases to 10% in individuals with diabetes. This condition occurs up to six times more frequently in women than in men. Treatment modalities in contemporary medicine include conservative management such as splinting, corticosteroid injections, ultrasound, and electrical stimulation, as well as surgical management. However, because the area is surrounded by a network of nerves and blood vessels, there is always a risk of damaging these structures during surgical treatment, which may lead to complete motor and sensory loss.

Acharya Sushruta explained that the Snayu² is a structure supporting the body which binds Mamsa and Asthi closely resembling the anatomical structure of tendons and ligaments. Acharya Charaka mentioned that when t Snayu is affected by vitiated Vata, it leads to clinical manifestations such as Stambha

(stiffness), Sankocha (contraction), Khalli (neuralgia of the upper extremities), Granthi (tumours in ligaments), Sphurana (throbbing sensation), and Supthi (numbness)³. Hence, we can correlate the trigger finger as Hastanguli Snayugata Vikara. For the treatment of Snayugata Vata, Acharya Sushruta advised going for Bhaya and Abhyantara Snehana, Upanaha, Agnikarma, Bandhana, and Mardana Chikitsa⁵.

"In this study, Bahirparimarjana chikitsa (externally administrative therapies) involving Sthahnik taila dhara⁴ is selected to help reduce pitta, which has a close relationship with Rakta, relieving pain and stiffness and strengthening the muscles. This is followed by Dashanga kumari upnaha, which effectively reduces swelling and pain and purifies the blood, preventing the worsening of diseases."

MATERIALS AND METHOD

Case Report: Three patients presented with painful locking of multiple fingers, tenderness at the metacarpophalangeal joint and restriction to perform day-to-day activities were reported to the OPD of the Panchakarma Department Government Ayurveda Medical College and Hospital Mysuru, Karnataka, India.

Table 1: Case Details of 3 Patients

Characters	Patient 1	Patient 2	Patient 3
Age	36years	59years	34years
Gender	Female	Male	Female
Occupation	Teacher	Carpenter	Teacher
Past medical history	Nothing significant	k/c/o hypertension	Nothing significant
Family history	Nothing significant	Nothing significant	Nothing significant
Symptoms			
Tenderness	Present at bilateral metacarpophalangeal joint	Present at right index finger and thumb	Present at the metacarpophalangeal joint of the right hand
Locking of the digit on extension	Right bilateral index finger	Right thumb	Right index and middle finger
Restriction of movement of the finger	Unable to move the thumb	Complete restriction of the index finger	Restricted extension of right index and thumb
Unable to hold objects with finger	+	+	+
Painful nodule at metacarpophalangeal joint	+	-	+

Systemic Examination

Central nervous system: Conscious, well-oriented
 Cardiovascular system: S1 and S2 heard no added sounds
 Respiratory system: normal vesicular breathing

Table 2: Examination of Fingers

Examination	Patient 1	Patient 2	Patient 3
Inspection	Flexion contracture of right thumb, Catching of bilateral index finger on flexion	Flexion contracture of the right index finger, Locking of right index and thumb	Locking of right index finger and thumb
Palpation	Tenderness at all metacarpophalangeal joint, Tender nodule present at a1 pulley of right index finger	Tenderness at right index finger and thumb	Tenderness right index and middle finger, Tender nodule present at a1 pulley of all finger
Motor function	Extension- absent in thumb, restricted and delayed extension in bilateral index finger	Range of movement, Absent in index finger	Painful flexion and extension of all digits of right hand
Sensory functions	No abnormality detected	No abnormality detected	No abnormality detected

Ethical Consideration: The case study was conducted as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

Informed Consent: Informed consent was obtained from the patient.

Table 3: Treatment Adopted

Procedure	Dravya	Quantity	Avadhi	Duration
Sthanik tailadhara	Pinda taila Mahamasha taila	Q.S	7 days	20 mins
Lepa	Dashanga lepa ⁶ Kumari swarsa ⁷ Chincha patra ⁸ swarasa Egg white	Q.S	7 days	The patient was advised to keep it for 12 hours

Q.S- Quantity sufficient

Taila Dhara: Sthanik tailadhara with Pinda taila and Mahamasha taila was done on palmar aspects of bilateral palms mainly focussing on the metacarpophalangeal joint followed by mrudu abhyanga was done for 20 minutes for 7 days.

Dashanga Kumari Upanaha: Dashanga lepa choorna along with Chincha patra swarsa, Kumari swarsa and egg white is mixed properly it will attain a gelatinous consistency . the mixture is warmed in a hot water bath indirectly applied gently all over the hands mainly focusing on palmar aspects and bandhana is done with kora cloth.

Table 4: Shamanoushadi

Medicine	Dosage
Simhanada guggulu	2 thrice a day after food
Ghandravahastadi Eranda taila	5 ml at night after food with milk

OBSERVATIONS AND RESULTS

Observations were made before, during and after the intervention and are summarized in the following tables.

Table 4: Subjective Criteria

Sl no	Clinical Features	Patient 1		Patient 2		Patient 3	
		BT	AT	BT	AT	BT	AT
1	Tenderness at MPJ	++	-	++	-	++	-
2	Locking of index and thumb	+	-	-	-	+	-
3	Restricted flexion and extension	++	-	++	-	+	-
4	Painful nodule at index finger	+	-	-	-	++	-

BT- Before treatment, AF- After treatment and MPJ- Metacarpophalangeal joint

Table 5: Scales Used for Assessment

Sl no	Scales	Patient 1		Patient 2		Patient 3	
		BT	AT	BT	AT	BT	AT
1	Quinnell's Grade for triggering the digit	4	1	3	0	4	0
2	Visual analogue scale	6	0	5	0	7	0

BT- Before treatment, AF- After treatment



Ingredients used in taila dhara and Dashangangakumari Upnaha



Sthanik Tailadhara



Application of Lepa



Hasta Bhandhana after Lepa

DISCUSSION

Snayugata Vata is a condition in which the Prakupita Vyana Vata, vitiated due to Atichesta (excessive activity) and Vatakara Ahara, undergoes Sthansamshraya in the Snayu, producing clinical features like Shula, Kampa, Granti, and Sankocha of the Snayu. These features closely resemble the clinical manifestations and pathology of the triggered finger, specifically the presence of an inflammatory nodule and constriction of the A1 pulley at the MPJ, leading to painful and restricted movement of the digits. In this context, the line of treatment for Snayugata Vata is adopted, where Acharya Sushruta advised use of Snehana, Upnaha, Bandhana, and Agnikarma. Here, Sthanika Tailadhara and Upnaha are selected due to the severity of Sankocha and Shoola in the Snayu. Sthanika Tailadhara, through Swedana, reduces Stabhadda and Vedana, provides Pitta Shamana, and improves

Rakta Sancharana, helping to reduce Shotha. Upnaha acts as both Vatahara and Shothahara.

Sthanika Tailadhara: Acharya Sushruta quoted a simile while explaining the importance of Seka, stating that just as water subsides fire, vitiated doshas will normalize through conducting Parisheka. It is effective as Vatanubandhi Pittasaya Upakrama, as it does Daha Prashamana (subdues burning sensation) and mainly helps reduce Shula, Daha, and Shotha. In the present case, Pinda Taila and Maha Masha Taila were selected.

Pinda Taila: It acts as Rujapaha (analgesic). Ingredients like Manjishta and Sariva provide Pitta Shamana and Rakta Prasadana, helping in the reduction of Shotha and thus aiding in the treatment of Snayugata Vikara. Pinda Taila is rich in anti-inflammatory, analgesic, healing, and antimicrobial properties.

Maha Masha Taila: It is indicated in Vatavyadhi Adhikara. Due to its Guru and Snigdha Guna, Masha provides Vata Shamana, acts as Bruhmana, and imparts Shhirata to the tendons of the metacarpal joints, which is much needed in cases of trigger finger.

Dashanga Kumari Lepa Mode of Action: The Dhatushoshaka property of Kashaya and the Tikta Rasa of most of the drugs in Dashanga Lepa act as Kapha Shotahara and Shoolahara, as many of the drugs possess Vedhanasthapaka properties and have Sheeta Virya. These properties act on the Raktavaha Srotas, reducing Shola. The Kashaya, Tikta Rasa, and Sheeta Virya of most of the drugs also serve as Pitta Shamaka due to their Vrana Ropana and Varnya properties, which help reduce Raga.¹¹

A study conducted using Thin Layer Chromatography of the methanolic extract of Dashanga Lepa on silica gel shows that Dashanga Lepa consists of numerous phytochemicals, including flavonoids, tannins, phenolic compounds, alkaloids, and glycosides. Flavonoids act as potent anti-inflammatory, antioxidant, and antimicrobial agents. Terpenoids present in Dashanga Lepa inhibit diabetic signalling via the necrosis factor (NF- κ B) system, thereby possessing beneficial therapeutic effects against inflammatory diseases. Tannins, when used topically, exhibit analgesic properties by decreasing the synthesis of prostaglandins.

The Pharmacological Activity of Chinch Patra (*Tamrindus indica*): It has Vata-Kaphahara properties, which mainly help in the reduction of Shula caused by Vata and Abhighata. Phytochemical analysis showed the presence of sterols and triterpenes, which are responsible for analgesic activity. It also has broad-spectrum antimicrobial activity.¹²

The Pharmacological Activity of Kumari (*Aloe vera*): It is Tridoshara and acts as Granthihara, Raktapittahara, Vishahara, Twakrogahara, Krimihara, and Vrana Aghni. It is rich in various phytochemicals. The enzyme Bradykinase helps reduce excessive inflammation when applied topically to the skin. Compounds such as salicylic acid, linolenic acid, and gibberellins possess anti-inflammatory properties. Lignin, an inert substance present in it, enhances the penetrative effect of the other ingredients in topical preparations.

Egg White: Eggs are a good source of high-quality protein, rich in essential amino acids that promote protein synthesis and the maintenance of skeletal muscle mass. Egg white-derived lysozyme naturally exerts antimicrobial activity.¹³

CONCLUSION

After the treatment, all patients showed a significant reduction in tenderness and improvement in joint mobility. The most notable improvements were in resolving finger-locking mechanisms and painful nodules at the metacarpophalangeal joint. Specifically, Patient 1's Quinnell's Grade improved from 4 to 1, Patient 2's from 3 to 0, and Patient 3's from 4 to 0, with corresponding pain

levels dropping to 0 for all. Overall, the treatment was highly effective, enhancing functionality and eliminating pain for all patients. It was successfully treated with Bahirparimarjana chikitsa, which is non-invasive and cost-effective. Historically, Panchakarma therapies have been effective in treating musculoskeletal disorders, and they should be brought to the public's attention so that more people can benefit from holistic Ayurvedic approaches to serious diseases.

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