

Management of Carpal Tunnel Syndrome (*Snayugata Vata*): A Case Study

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ABSTRACT

Carpal tunnel syndrome (CTS) is the most common condition resulting from median nerve entrapment in carpal tunnel. It causes pain, numbness, and tingling sensation in the thumb, index, middle and radial portion of ring finger. In this case, 50 years old female patient complaints of pain, numbness and tingling sensation on right wrist and hand, swelling over right wrist and restricted wrist joint movement for 2 months visited Shalya Tantra Opd. On inspection, swelling on wrist region present. Tinel's and Phalen's test were positive. Also, there was restricted movements of wrist joint. This condition can be correlated with *Snayugata Vata* in which *Sneha*, *Upanaha*, *Agnikarma*, *Bandhana* and *Unmardana* as treatment are mentioned. Patient underwent Murivenna oil bandage for weekly once up to 1 month. After completion of treatment patient got remarkable relief from signs and symptoms and no recurrence till 7 months.

KEY WORDS: *Carpal tunnel syndrome, Murivenna, Snayugata Vata*

INTRODUCTION

Carpal tunnel syndrome is known as the compression of the median nerve at the wrist as it travels through the carpal tunnel. Compression of the median nerve can occur due to various factors, including skeletal abnormalities, swelling of surrounding tissues within the carpal tunnel, or thickening of the transverse carpal ligament, also known as the retinaculum.^[1] Carpal tunnel syndrome affects 1-5% of the general population, with a higher prevalence among women than men, at a ratio of 3 women to 1 man. Obesity, monotonous wrist activity, pregnancy, rheumatoid arthritis, tenosynovitis etc are risk factors. The syndromes are pain in the hand, numbness, and tingling sensation in the median nerve distribution. As the condition progresses, patients may experience difficulty with delicate movements, such as buttoning shirts or performing other tasks that require precise hand coordination. In advanced cases of carpal tunnel syndrome, patients may experience severe complications, including atrophy of the thenar muscles, weakness in thumb abduction, and sensory disturbances within the median nerve distribution area. Treatment options for carpal tunnel syndrome include injecting corticosteroids, using a wrist splint to immobilize the joint, and surgically releasing pressure on the median nerve by dividing the flexor retinaculum.^[2]

Based on the features of carpal tunnel syndrome it can be correlated with *Snayugata Vata* mentioned in *Vataja Nanatmaja Vyadhi*. When it affects *Manibandha Sandhi*, it produces symptoms like *Toda*, *Bheda*, *Manibandha Sandhi Soola*, *Hasta Shoola Sthambha* and *Supti*.^[3] Treatment mentioned in *Snayugata Vata* are *Sneha*, *Upanaha*, *Agnikarma*, *Bandana* and *Unmardana*.^[4]

This article highlights the therapeutic potential of *Murivenna*, a traditional medicated oil, commonly used in southern India to treat various conditions, including *Asthibhagna*, *Abhigatajanya Sopha*, *Sandhisopha*, *Sandhichyuta*, *Vrana* etc.^[5] the term *Murivenna* is derived from two words: 'Murivu' which means injury or wound, and 'Enna', meaning oil. The origins of *Murivenna* can be traced back to ancient medical texts, specifically the book 'Agastyamarma Sastra'.^[6] Overtime, the formulation has undergone numerous variations, with different practitioners incorporating their own experiences and observations, ultimately earning *Murivenna* the designation of an 'Anubhuta Yoga'.^[7] Ayurvedic Formulatory of India instructed its content and preparation method.^[8]

Table 1- Ingredients of Murivenna

No.	Contents	Botanical name	Part used	Quantity
1	<i>Kumari</i>	<i>Aloe vera</i> Tourn ex Linn	leaves	384g
2	<i>Palandu</i>	<i>Allium cepa</i> Linn	bulb	384g
3	<i>Paribhadra</i>	<i>Erythrina indica</i> Linn	leaves	384g
4	<i>Karanja</i>	<i>Pongamia pinnata</i> (L) Pierre	stem bark and leaves	384g
5	<i>Buka</i>	<i>Spermacoce hispida</i> Govaerts	whole plant	384g
6	<i>Thamboola</i>	<i>Piper betle</i> Linn	leaves	384g
7	<i>Shigrupatra</i>	<i>Moringa oleifera</i> Lam	leaves	384g
8	<i>Satavari</i>	<i>Asparagus racemosus</i> Willd	root	144g
9	<i>Narikela</i>	<i>Cocos nucifera</i>	oil	768ml
10	<i>Tandulambu</i>	<i>Oryza sativa</i>	Rice water	768ml

CASE REPORT

A 50 years old female patient from Lakhabawal, Jamnagar was come to Shalya Tantra OPD of ITRA, Jamnagar with chief complaints of pain, numbness and tingling sensation over right wrist and hand, swelling over right wrist and restricted wrist joint movement for 2 months

History of present illness

Patient was asymptomatic 2 years back. Then she had a road traffic accident and fractured her right wrist area, which was treated with internal fixation and plate insertion. She got complete relief after 3 months of treatment. 2 months ago, she developed sudden pain in the same area and unable to move the joint after lifting a heavy can of oil while doing her household work. Gradually, swelling appeared and she was unable to move the joint. Due to severe pain, she was not able to perform her usual work. Despite taking pain medication for 2 months, she experienced no alleviation of her symptoms. So, she came in Shalya Tantra OPD for its further management.

On Examination

Noticeable swelling was observed over the right wrist joint. There was a scar mark of internal fixation and plate insertion done 2 years back (Figure-1). Patient demonstrated limited mobility in the affected joint (restricted dorsiflexion and plantar flexion). Tinel's sign was positive in this patient, which involves lightly tapping the median nerve to reproduce symptoms such as radiating pain and tingling sensation. On performing Phalen's test, as instructing the patient to fully flex forward the wrist for 2 minutes, resulted in increasing numbness and pain.



Figure- 1: Scar of previous surgery

INVESTIGATION

Patient came with an x-ray taken 2 years back in which it was evident that she had right distal radial bone fracture and its management with internal fixation (Figure-2). Then she undergone EMG-NCV test which reveal carpal tunnel syndrome with moderate severity (Figure-3).

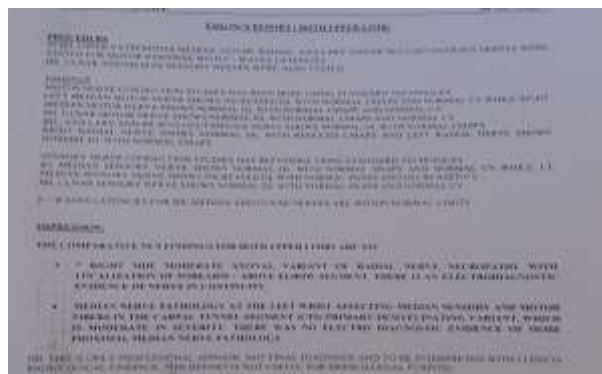


Figure 3 EMG-NCV test (28/04/2024)



Figure 4- After wrist bandaging

Methodology

Patient seated in a comfortable position after getting informed consent. Then patient affected hand was massaged lukewarm using Murivenna oil for 5 minutes in medium pressure directed away from the wrist. A gauze pad soaked with the oil kept over the wrist joint and bandaged (figure-4). Patient then instructed to pour approx. 5 ml oil above the bandage 2 times in a day. Bandage was changed in every week for one month.

Patient was instructed to avoid loading heavy things using the affected hand. Also advised for doing wrist exercise for 10 minutes daily.

ASSESSMENT

Pain was assessed using visual analogue scale.^[9] Symptom severity and function status of hand assessed using Boston carpal tunnel syndrome questionnaire (BCTQ).^[10] Goniometer was used to analyse wrist joint movements.

RESULT AND DISCUSSION

With this one month of treatment, patient got remarkable relief from pain and swelling, and also marked improvement in the Range of movement in the affected hand (Figure 5). Now she is able to do fine hand movements like hooking the blouse, picking small objects etc.

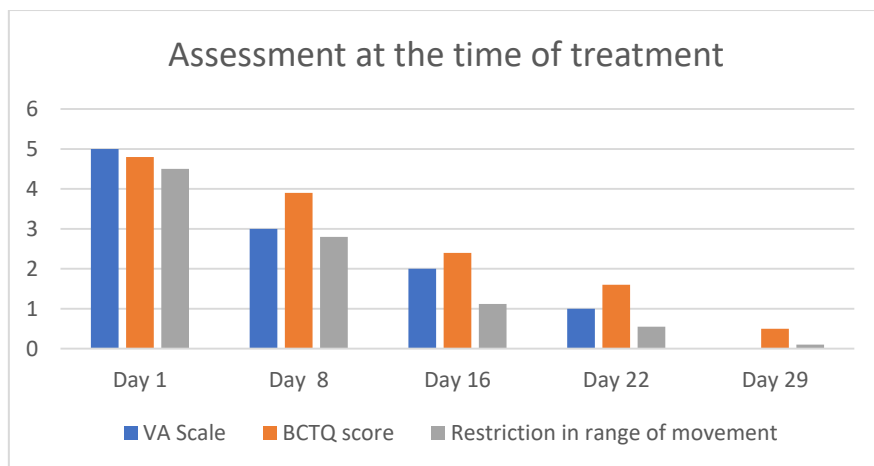


Figure 5: Graph showing the improvement in signs and symptoms of patient

In this case, patient affected with carpal tunnel syndrome due to *Abhighatajanya Sopa*, *Sophahara* management in this condition made good result. Most of the drugs in *Murivenna* has *Ruksha*, *Ushna Guna*, which reduces *Sopa*.^[11]

Murivenna has therapeutic benefits which includes wound healing, pain relieving and anti-inflammatory properties when applied topically.^[12] The components in *Murivenna* work synergistically to alleviate symptoms associated with soft tissue injuries, facilitating effective recovery.

According to Susruta, the *Virya* of the externally applied medicines helps in penetrating the ends of the blood vessels, and cause therapeutic action.^[13] Being oil based, it can easily penetrate the lipophilic skin, provide sustained benefits.^[14] Bandage will act as a wrist splint which hold the hand in neutral position and helps to reduce pressure on median nerve.^[15] *Vestana* is also a procedure which alleviate *Vata*.^[16] The drug not only halts the progression of the disease but also reverses the underlying pathology, making it an ideal medicine used for bandaging.

CONCLUSION

This study offers promising results for exploring alternative treatments beyond conventional allopathic methods for managing early stages of Carpal tunnel syndrome, providing a cost-effective option for patients. While this case report demonstrates promising results, further research and analysis of multiple cases are necessary to scientifically validate this method.

NOTES ON PATIENT CONSENT

Consent was taken from the patient before starting the treatment protocol as well as prior to publication of the case details and pictures without disclosing the personal identity.

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