



# CARPAL TUNNEL SYNDROME-AN AYURVEDIC VIEW

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## Abstract:

Carpal tunnel syndrome (CTS) is one of the most common compressive, canalicular neuropathies of the upper extremities, causing hand pain and impaired function. CTS results from compression or injury of the median nerve at the wrist within the confines of the carpal tunnel. In some cases, the cause remains unknown. The syndrome is however common in hypothyroidism, DM, RA, in pregnancy. This condition may occur occasionally in myxedema, osteoarthritis, malunited Colles' fracture. It is more common in middle-aged women at the menopause. It is about 8 times more common in women.<sup>1</sup>

Pain and numbness in the fingers, particularly in the index and middle finger, sometimes in the thumb, is the common presenting symptom. Such pain is usually worse at night and awakens the patient with burning pain, tingling sensation, and numbness. In Ayurveda, CTS can be compared with Vishwachi. Conventional medical systems using broad-spectrum pain-killers, analgesics, ointment, NSAIDs, and surgery. Despite advancements in the medical field, there are no satisfactory treatment strategies that can manage the condition completely. Treatment approaches emphasized in Ayurveda are useful in such conditions. In Ayurveda, Vatahara, Snigdha, Balya, Rasayana treatment is mentioned.

**Key words:** carpal tunnel syndrome, Vishwachi, Patra Pinda Sweda

## Introduction:

This is a condition in which the median nerve is compressed at the wrist as it passes through the carpal tunnel—the space between the carpal bones posteriorly and the flexor retinaculum anteriorly. In the normal tunnel, there is exactly room for the flexor tendons and the median nerve, so any swelling here is likely to result in compression of the nerve. The compression can be caused by skeletal abnormalities, swelling of other tissues within the tunnel, or thickness of the retinaculum. The syndrome is however common in hypothyroidism, DM, RA, in pregnancy. This condition may occur occasionally in myxedema, osteoarthritis, malunited Colles' fracture. In some cases, the cause remains unknown. This syndrome is more common in middle-aged women at the menopause. It is about 8 times more common in women.<sup>2</sup> Conventional medical systems using broad-spectrum pain-killers, analgesics, ointment, NSAIDs, and surgery. Despite advancements in the

medical field, there are no satisfactory treatment strategies that can manage the condition completely .Treatment approaches emphasized in Ayurveda are useful in such conditions.

### SYMPTOMS:

Pain and needles in the fingers particularly in index and middle finger, sometimes in thumb, is the common presenting symptoms. Such pain is usually worse at the night and wake up the Patient with the burning pain, tingling sensation and numbness. Pain and par aesthesia occurs in the distribution of medial nerve, the fingers may swell. Handing the arm over the side of bed or getting up or waking up about may relieve pain. The pain may radiate from forearm to arm. The fingers may feel stiff particularly at morning. As compression increase, the neurological symptoms appear more frequently. Patient notices that she cannot do delicate movement and often drops small articles. There is actually no power loss of any muscles but there is loss of fine discriminatory sensation.<sup>3</sup>

According to ayurveda, carpal tunnel syndrome can be correlates under Avabahuka, viswachi.

Abhighata, Ati Chinta, Ratrijagarana, Vishamasana, Divaswapna, Vegodharana, Ruksha, Sita Ahara, Ati-Langhana, Ati-Chestha, Krodha, Shoka, are the etiological factors<sup>4</sup> in manifestation of Avabahuka, viswachi. Symptoms are more similar to the viswachi than avabahuka.

*“talapratyangulinatukandarabahuprushthatah. Bahyokarmakshayakariviswachitii hi smrutah .”<sup>5</sup>*

Thus, the choice of treatments is Vata Shamaka. Nirgundi Patra Pinda Sweda( Karma) and oral medicines which are Vata Shamaka, Rasayana, as well as Balya Properties are prescribe.

Modern medical science using broad spectrum pain-killers, analgesics ointment, NSAIDS, Surgery. Despite of advancements in the medical field, there are no satisfactory treatmentstrategies that can manage the condition completely .Treatment approaches emphasized in Ayurveda are useful in such conditions. In this Current study, Nirgundi Patra Pinda Sweada is used to manage the carpal tunnel syndrome.

### CASE REPORT :

A 42 years old female visited OPD with the chief complaints of pain(~todavat-vedana) which radiating from both shoulder to distal phalanges of both upper limbs with tingling sensation(~chimachimayan) by which patient wake up at night 8-10 times at night . Numbness (~suptata) feels from shoulder to distal phalanges of both upper limbs at whole day (24 hrs). Patient is not able to extend her both upper limbs in upward direction (~akunchane- prasaranekasthata) & was not able to perform her routine activities last 6 months.

### HISTORY PRESENT ILLNESS:

Patient had fallen down from the table over the ground (1 year back) and was injured at both forearm with swelling and pain. Patient consulted orthopedic doctor. Forearms' swelling disappeared after allopathic medicine. All complains were disappeared after treatment. But last 6 month, she suffered for same. So she re-consulted orthopedic doctor. He advised conservatives treatment viz- pain- killer (Diclophenac sodium). tab BD, rest and surgery –SOS with CBC, NCS reports. Patient dint get relief, after Allopathic treatment. So she approached to the OPD of PANCHAKARMA, AKHANDANAND AYURVEDIC HOPITAL, BHADRA .

*Sharirika Prakriti* of this patient is Vata, Pitta. Bala –Madhyama, Kosta – Madhyama with Satva-Madhyama Satva.

No past history of tuberculosis, diabetes mellitus, hypertension, hypothyroidism. No other family history or major chronic illness. Treatment prescribed to her by panchakarma OPD were belows:

**Treatment: (1) Aushadha (orally) (2) Karma (Patra Pinda Sweda)**

- (1) Navajivana Ras 2.....0.....2 tab (after meal)  
 (2) Laghu Yogaraja Guggulu 2.....2.....2 tab  
 (3) Ajamodadi Churna 3 gm / 2 times (before meal)

**Karma:** Pinda Sweda (once a day) with locally Abhayanga (twice a day) followed by orally medicines for 90 days.

Abhayanga: firstly Abhyanga is applied over back, B/H neck, both upper limbs with the Lukewarm Mahanarayana tail for 5-10mins. Then Nirgundipatra Pinda Sweda is applied.

Patra Pinda Sweda:

The leaves used –Viz Nirgundi (Vitex nirgundo) 500gm, Arka Patra(500gm), Dhatura Patra(500gm) chopped in small pieces. other ingredients like-pieces of lemon(4pieces), Coconut grating(20gm), Methika(10gm), Ajamoda(10gm), Madhuyasti Churna(5gm), Guduchi Churna(5gm), Ashwagandha Churna(5gm), Saindhav lavana(10gm), Mahanarayana tail (as per required), clothes for placing rosted medicines, threads to tie the clothes into bolus, heating apparatus, spoon, pan, spatula, etc. are taken for preparation of Patra Pinda Sweda.

Mahanarayana tail ( 50ml) is taken in pan. Slices of lemon are added into it. When the slices lemons becomes slightly fried the powder of Methika(10gm), Ajamoda(10gm) scraped coconut(20gm) saindhava(20gm) are added, when mixture was turned into brownish & stirred well Guduchi Churna, Madhuyasti churna, Ashwagandha Churna are added. Then leaves added one by one. When leaves are fried then mixture are taken out and tied into cloth and form potali by tied it by strong thread so as form a bolus of Patra Pinda. Four boluses are prepared for properconduction of the procedure in undisrupted manner. The potalis are dipped in oil which is kepton heating apparatus at a constant temperature in pan. The potali is gently rubbed over back, behind the neck, both upper limbs for 5-10mins in each position. After procedure, patient is advised to take rest for 1 hour and take bath after 1hour with lukewarm water.

Pathya – Apathyahara & vihara: patient was advised to avoid direct contact of wind, Divaswapna, Chinta, Vegodharana, Ratrijarana, Ati-vyayama. Spicy diet, cold drink was avoided.

**Results:**

A patient started responding to the interventions and at the end of the treatment all symptoms reduced significantly. Satisfied observations noticed. Tingling sensations, Numbness, awaken at night due to pain was gradually reduced. Patient was able to do her Routine activities without any problems.

## Discussion:

### Selection of procedure:

Carpal tunnel syndrome is correlated with Visvachi which is Vata Pradhana Vyadhi according to Ayurvedic texts. among Vatasopakrama Abhyanga, Swedana are the first line Chikitsa of vata dosha.<sup>6</sup> So Patra Pinda Sweda is selected.

### Possible mode of action of Patra Pinda Sweda:

Patra Pinda Sweda: swedana procedure has Vatahara properties. It produces Mardavata, Laghuta, Agni vrudhi, Shrotosuddhi, Ashu Gati of Sandhi and reduces Sandhi Sthambhata, Gauravata, Shula, Shuptata, Shitata from the body.<sup>7</sup>

Abhyanga: Abhyanga also has Vatahara Gunas and promotes Ayu, Dardhyakruta in body<sup>8</sup>. It pacifies vitiated Vata Dosha and normalized.

### Samana Aushadha:

#### Navajivana Rasa<sup>9</sup>:

It has Vata-Kaphahara, Shulahara, Deepan-pachana, Vatanadi poshaka, Hridhya, Balya, Rasayana Gunas. It works directly on Vatahara nadis and reduces Gatibhransa, sthabdhata and heaviness in the body by clearing the obstruction from the body (~shrotosuddhi). It showed improvement in peripheral nerve conduction and blood supply through Raktaposhaka Guna.

#### Laghu Yogaraja Guggulu<sup>10</sup>:

It acts as Vedana sthapana, Nadi balya, Sothahara, Deepana-Pachana. So it works as Vata- Kaphahara, normalized Vata-Kapha, reduce stiffness, pain, Heaviness, Tingling sensation.

#### Ajamodadi Churna<sup>11</sup>:

It works on Ama by clearing the obstruction from the joints and muscles. So it reduces stiffness and heaviness.

## Conclusion:

Based upon the symptoms and signs Carpal tunnel syndrome can be Correlated with Visvachi which is Vata Pradhana Vyadhi according to Ayurvedic texts. Patra Pinda Sweda followed by Abhyanga with Samana Aushadhas significantly Reduce all symptoms of carpal tunnel syndrome. No adverse effect can be noticed during and after treatment. Though this is a single case study; further well designed studies are needed to be conducted to establish actual efficacy and safety of the procedure and formulations used here.

**Examination:****(before Treatment):**

Right Hand Examination:

NO.	TEST	TIME DURATION	RESULTS
1	Tinel's sign	30 second	+ve
2	Phalen's sign	15 second	+ve
3	Durken test	20 second	+ve

Left Hand Examination:

NO.	TEST	TIME DURATION	RESULTS
1	Tinel's sign	40 second	+ve
2	Phalen's sign	25 second	+ve
3	Durken test	30 second	+ve

**Examination:****(after Treatment):**

Right Hand Examination:

NO.	TEST	TIME DURATION	RESULTS
1	Tinel's sign	-	-ve
2	Phalen's sign	-	-ve
3	Durken test	30 mins	+ve

Left Hand Examination: (after Treatment)

NO.	TEST	TIME DURATION	RESULTS
1	Tinel's sign	-	-ve
2	Phalen's sign	-	-ve
3	Durken test	-	-ve

**SYMPTOMS SEVERITY SCALES (CTS):**

The following questions refers to your symptoms for a typical 24 hr, period during the last 2weeks:

<sup>12</sup>Severity and functional scale:

GRADE-1: NO OR NEVER GRADE-2:

MILD

GRADE-3: MODERATE GRADE-4:

SEVERE GRADE-5: VERY SEVERE

No.	Questions	BT	DT	AT
1.	How severe is hand or wrist pain that you have at night? ( patient wake up at night more than 6times/night)	4	3	2
2.	How often hand /wrist pain wake up during a typical Night in past 2 weeks?	5	3	1
3.	Do you have typically pain in your hand /wrist during day time?	5	4	1
4.	How long /average, dose of episodes of pain last daytimes?	5	4	1
5.	Do you have typically pain in hand /wrist at daytimes?	5	4	1
6.	Do you have numbness in your hand?	5	4	1
7.	Do you have weakness in your hand?	4	3	1
8.	Do you have tingling sensation in your hand?	5	3	1
9.	How severe is numbness or tingling sensation at night?	5	3	2
10.	How often did Had Numbness or tingling sensation wake up during a typical night in last 15days.	5	3	1
11.	Do you have any difficulties with grasping and use of small objects such as keys or pens?	4	3	1

### Functional status scale:

1	Writing	5	2	2
2	Buttoning of cloths	1	1	1
3	Holding a books while reading	3	1	1
4	Gripping of a telephone handle	3	1	1
5	Opening jars	4	1	1
6	Household chores	3	1	1
7	Carrying grocery bags	4	Pt not performed	1
8.	Bathing and dressing	3	1	1

### DASHDISABILITY / SYMPTOMS SCORE:<sup>13</sup>

GARDE-1: NO DIFFICULTY

GARDE-2: MILD DIFFICULTY GARDE-3:

MODERATE DIFFICULTY

GARDE-4: SEVERE DIFFICULTYGARDE-5:

UNABLE



NO	Questions	BT	DT	AT
1	Opening of jars	4	3	1
2	Do you household chores( example-walls, floor)	5	4	2
3	Carry a shopping bag/briefcase	4	3	2
4	Wash your back	3	3	1
5	Use knife to cut food	5	4	1
6	Recreational activities in which you take force or Impact through your arm, shoulders/hand(example-golf, hammering, tennis)	4	4	2
7	What extent has your arm/shoulder/hand problems interfered with your normal social activities with family, friends, neighbor	5	4	1
8	How much your arm, shoulder/hand problems limited your daily/regular activities	5	3	2
9	Arm / shoulders /hand pain	4	2	2
10	Tingling sensation (pins & needles) in arms/shoulders/hand	5	4	2
11	How difficulty feel during sleeping because of pain	3	2	1

<sup>1</sup> Textbook of surgery, s.das, 8<sup>th</sup>adition,page-365. <sup>2</sup> Textbook of surgery, s.das, 8<sup>th</sup>adition,page-365. <sup>3</sup> Textbook of surgery, s.das, 8<sup>th</sup>adition,page-365

<sup>4</sup> Chakra Samhita', edited by Gurjara Vidhyodaya' published by Ashwin shah, Ahmedabad-380001, 2011- 2012, Chikitsa Sthana, 28/15-18, page-604.

<sup>5</sup> Susruta Samhita edited with 'Susrutavimarsini' Hindi Commentary along with Special Deliberation etc .by Dr. Anant Ram Sharma, Chaukhamba Surabharati Prakashan, Varanasi-221001, Susruta Nidana Sthana, 1/75, page-469. <sup>6</sup> Ashtanga Hridayam, edited with 'Nirmala' Hindi Commentry by Dr.Brahmanand Tripathi, published by Chaukhamba Sanskrit Pratishthana, Delhi, 110007, Sutra Sthana 13/1, page-185.

<sup>7</sup> Susruta Samhita edited with 'Susrutavimarsini' Hindi Commentary along with Special Deliberation etc .by Dr. Anant Ram Sharma, Chaukhamba Surabharati Prakashan, Varanasi-221001, Susruta Chikitsa Sthana, 32/20, page- 420

<sup>8</sup> Ashtanga Hridayam, edited with 'Nirmala' Hindi Commentry by Dr.Brahmanand Tripathi, published by Chaukhamba Sanskrit Pratishthana, Delhi, 110007, Sutra Sthana 2/8, page-29.

<sup>9</sup> Rasa tantra sara & siddha prayoga samgraha, part-2, Krishna gopal Ayurveda bhavan, Rajasthan 22th Sanskarana, 2017, page-289.

<sup>10</sup> Bhasajya ratnavali amavat Chikitsa 29/153

<sup>11</sup> Sarangdhara samhita annotated with "DIPIKA" Hindi commentary by Dr. Brahmanand Tripathi, Chaukhambha Shurabharati Prakashan 2016, Madhyama Khanda 6/113-117.

<sup>12</sup> <http://images.app.goo.gl/GQ8wBT5Cy8cwJAB9> (Google from studylib.net images.app.goo.gl)

<sup>13</sup> [Hppt://images.app.goo.gl/RAzFt9JxAESdTyNc9](http://images.app.goo.gl/RAzFt9JxAESdTyNc9)