

AYURVEDIC PERSPECTIVE OF CARPAL TUNNEL SYNDROME

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ABSTRACT

Carpal Tunnel Syndrome (CTS) is the most common entrapment neuropathy of the upper limb and an increasingly recognized cause of work disability. CTS is characterized by sensory and motor symptoms and signs in the peripheral distribution of the median nerve. In Ayurveda literature, upper limb pathologies have been described in various contexts. But no disease condition pertaining to hand and wrist symptoms specific to Carpal Tunnel Syndrome has been described. Considering the increasing number of Carpal tunnel syndrome patients encountered in daily medical practice, it is need of hour to focus on Ayurvedic perspective of Carpal tunnel syndrome and thereby the *kriyakrama* to be adopted. As per Ayurveda, based on *hetu sthana vishesha*, Carpal Tunnel Syndrome is a disorder of *kapha vata* vitiation. Considering treatment aspect, the *vikalpa* of *dosha* should be considered as per stage of progression of Carpal Tunnel Syndrome and appropriate treatment plan should be adopted. Accordingly, the stage wise *dosha vikalpa* in Carpal Tunnel Syndrome and its management with *Panchakarma kriyakrama* have been elaborated.

Keywords: Carpal Tunnel Syndrome, Ayurveda, *Panchakarma kriyakrama*.

INTRODUCTION

Carpal Tunnel syndrome belongs to a ménage of disorders called Cumulative Trauma Disorders (CTDs) which are caused by repetitive, sustained, or forceful motions occurring over time, compromising the integrity or functioning of the soft tissues and producing inflammation of the tendons or compression of the peripheral nerves ^[1]. CTS is the most commonly reported nerve compression syndrome with an overall prevalence of 2.1% in the general population ^[2]. Elsewhere, prevalence rates are even higher

when the definition is based on symptom reporting. CTS is usually considered as a clinical entity with symptoms of numbness, tingling, and pain with nocturnal exacerbations located mainly in median nerve distribution, i.e. thumb, index, middle and radial half of ring fingers ^[3]. Signs include Phalen's test (Wrist Flexion Test), Tinel's sign, thenar atrophy, sensory changes in the distribution of median nerve.

AYURVEDIC PERSPECTIVE

In Ayurveda literature, most of

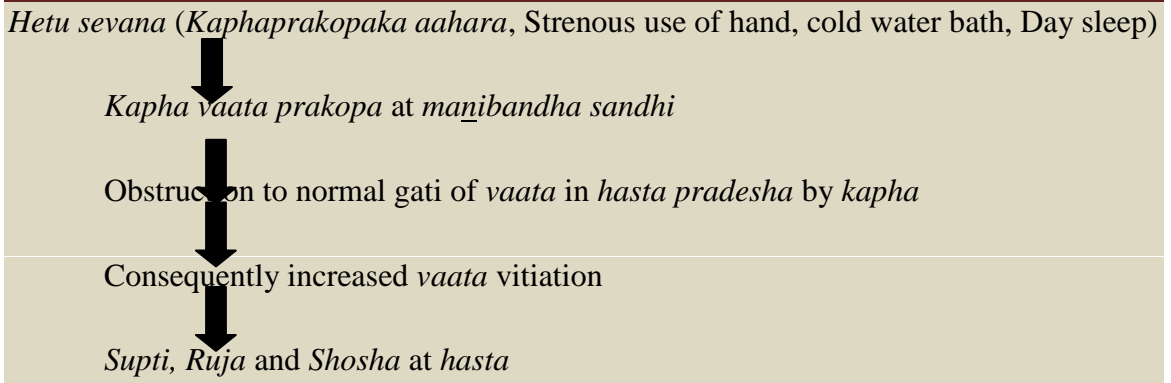
the upper limb pathologies have been described under the category of *vaata vyaadhi*. There is no disease which can be exactly correlated with Carpal Tunnel Syndrome. Upper limb pathologies and symptoms described in ayurveda:

1. *Avabaahuka*^[4] – *baahupraspandita-hara, am`sa shosha* (sensory impairment with wasting or atrophy at shoulder region)
2. *Vishwaachi*^[5]- described as *baahucheshhtaapaharini* (causing motor or functional loss of movements of upper limb)
3. *Am`saphalaka marmaaghatha*^[6] – *baahuswapa* (loss of sensation), *s`osha* (wasting)
4. *Am`sa marmaaghatha*^[7] – *Bahukriyaahara* (motor impairment of arm)
5. *Kukshigatha vidradhi*^[8] – *Antar am`sa s`oola* is a symptom seen.
6. *Vega sandhaaranajanya s`osha*^[9] – *am`sam avamrdnaathi*
7. *Vaataja gulma*^[10] – *am`sa ruja* (shoulder pain) is a symptom explained.
8. *Raajayakshma*^[11] – *am`sathapa* (shoulder discomfort).
9. *Arditha*^[12] – *upas`oshya asr`gbaahu*
10. *Sapthama visha vega*^[13] – *skanda bhanga* (Dislocation of shoulder girdle).
11. *Vaataja ars`a*^[14] – *am`sa adhikayo vyatha* (Shoulder pain/ discomfort).
12. *Sandhigata vaata*^[15] – *prasaarana akunjanayor pravruithi sa vedanaam* (painful extension and flexion).
13. *Ekaanga roga*^[16] – *sankochayeth ekam hastham va thoda s`oola kruitha* (contracture at one limb with pricking pain).

But no disease condition pertaining to hand and wrist symptoms is described in ayurveda literature. So Carpal Tunnel Syndrome cannot be equated to a particular disease condition in ayurveda. Hence, considering the symptoms manifested, the pathogenesis can be formulated; as *acharya Caraka* has described that depending upon the *hetu vishesha* and *sthaana vishesha*, the aggravated *vaayu* produces various diseases^[17]. *Ca-krapaani* while commenting on this has explained that *hetu vis`esha* means because of specific nature of causative factors like occlusion by *kapha* etc. and the site of affliction (*sthaana*), vitiated *vaata* produces specific diseases^[17].

Pain, numbness, tingling sensation and weakness in hand are the chief presenting complaints in Carpal Tunnel Syndrome. Also in advanced cases, wasting of thenar muscles is seen. So in Ayurveda parlance, *vedanaa or ruja, prasupthi* and *bala haani* may be considered.

In Carpal tunnel syndrome, patients present with numbness in hand as primary feature. *Prasupthi* is described by *Acharya Vaagbhata* that *shleshma* aggravated *vaayu* reaching the skin gets dried up greatly and the skin eventually becomes pale with loss of sensation with little or no itching and moistness^[18]. Additionally we can say that this *kapha* causing *margaavarodha* of *vaata* at *manibandha* presents as *prasupthi* at *hastha* and further lead to more *vaata* aggravation and manifest as *ruja* and *shosha* at *hasta pradasha*. So the pathogenesis of Carpal Tunnel Syndrome in ayurveda parlance can be formulated



So the dosha dominance can be considered as *Kapha vaata* and *dooshya* are *mamsa, medas* with *sthanasamsraya* at *manibandha sandhi*.

TREATMENT ASPECT

Considering the treatment aspect, for *kapha aavr'tta vaata, rookshana*^[19] should be done. But in case of Carpal Tunnel Syndrome, stage wise treatment may be considered as follows:

Initially, the exposure to *Kapha prakopaka aahaara* and *vihaara* causes vitiation of *kapha* and due to *kha vai-gunya* at *manibanda sandhi*, this vitiated *Kapha* starts causing obstruction to normal gati of *vaata* thereby favouring further *vaata* vitiation. So in this initial stage, *rookshana* to combat *Kapha* vitiation may prove helpful which should at the same time not disturb *vaata*. *Rooksha drava sveda* with *dhanyamla* can be adopted at this stage.

Eventually, the continuous obstruction to gati of *vaata* causes more vitiation of *vaata* which becomes equal as *kapha* vitiation on *vikalpa samprap-thi*. So in this stage, *snigdha, ushna chikitsa* to combat both *kapha* and *vaata* is useful. And so *snehana* with *taila* processed with *ushna, teekshna, kapha vaatahara dravyas* in the form of *shamana snehapaana* may prove effective as *sneha* properties like *sookshma, sara*

guna facilitate the transport of *kapha vaatahara* property targeting the *madhyama roga marga*. This helps to relieve *kapha aavarana* and at the same time help to pacify *vaata*.

If not corrected at this stage, finally the vitiated *vaata* overpowers the *kapha* resulting in *shosha* as evidenced by thenar muscle atrophy in advanced cases of Carpal Tunnel Syndrome. And so in this stage *snehana* with *brmhana taila* like *Maha Masha Taila* along with *salvana upanaha* proves useful.

CONCLUSION

The number of patients with Carpal Tunnel Syndrome encountered in daily medical practice is significantly high. On review of literature, no research works on management of Carpal Tunnel Syndrome in Ayurveda have been conducted so far. So it is high time to elaborate the pathogenesis and stage wise management schedule of Carpal Tunnel Syndrome from ayurvedic perspective considering the *dosha vikalpa* in pathogenesis. Further clinical studies should be undertaken to validate the *ayurvedic* pathogenesis and stage wise *Panchakarma kriyakrama* mentioned here for treatment of Carpal Tunnel Syndrome.

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