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### **Diagnosis and Management of Cervical Radiculopathy - An** Ayurvedic perspective

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#### ABSTRACT

Among the spine, cervical area is considered to be vital as the motor and sensory nerves controlling the body mechanism (bellow the neck) pass through this area. The different pathological conditions affecting this area range from simple degeneration to that of fracture. Depending on the extent of disease, the symptom may be simple neck pain, stiffness, weakness to that of severe radiculopathy, quadriplegia due to cord compression. The diseases presenting with such symptoms which is a threat to the working population is cervical radiculopathy. Due to its affect over the personal and occupational life and increasing incidence it needs immediate attention. Hence, the early detection, early and proper management, rehabilitation, prevents patient from suffering and disability. In Ayurveda, the disease which mimics the symptom of cervical radiculopathy is vishwachi where the involvement of prakupita vata, khandara, asthi is evident by the samprapti. Among the general vata vyadhi nidanas, the nidana which cause vishwachi will be discussed with possible samprapti. Among the management, as the part involved is jatrurdhwa, nasya is the first and ideal treatment along with other supportive therapies like pachana, snehana, swedana and so on. Based on the samprapti and dosha involved, the type of chikitsa differs. The vata vyadhi nidana specific to cervical radiculopathy and its management from Ayurvedic perspective will be discussed.

#### **KEYWORDS**

Cervical radiculopathy, Vishwachi, Nasya karma, Pachana, Snehana, Swedana



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#### **INTRODUCTION**

Healthy lifestyle is the need for normal formation, growth and maintenance of body tissues. But due to the present changed lifestyle, person is forcibly involved in stress, excess travelling, improper postures; weight bearing in abnormal posture which will accelerates the degeneration in affected body parts. The target oriented, fast life style is also the cause for sudden injuries to the related parts. One among such diseases affecting the neck as a result of severe degeneration or sudden injury is cervical radiculopathy. Depending on the extent of disease, the symptom may be simple neck pain radiating to the upper limb, neck stiffness to that of weakness and functional disability in affected limbs. Due to this, the disease is becoming a serious threat to the working population. The increasing incidence and the functional disability show the need of an urgent and energetic treatment.

In Ayurveda, the disease which mimics the symptom of cervical radiculopathy is *vishwachi* where involvement of *prakupita vata, khandara,* is evident by the *samprapti*<sup>1</sup>. As there is no specific *nidanas* explained in *samhitas* for *vishwachi* and as *vishwachi* is one of the *vatavyadhi,* the general *vatavyadhi nidanas* can be

considered as *nidana*. Some of the specific causes of *vatavyadhi* which can leads to *vishwachi* are:

The common *vata vyadhi nidana* can be categorized into: *Agantujaa* and *nija karanas* 

*Aagantuja karana*: These are the *sannikrusta nidanas*. Among different *bahya karanas*, the *nidana* which can cause *vishwachi* are

*Abhighata and Apatamsana*: Hit on the back, fall from a height hitting the head are the common forms of trauma (*abhighata*) In mild form, the minor *vidhata* (injury) to the *snayu, sira, khandara, Asti and sandhi* of neck may be the consequences. In severe cases it may cause severe injury to these structures causing *sandhi cyuti or asti bhagna*<sup>2</sup>. There will be immediate pain due to *vata prakopa*. When the *khandaras* are affected, then radiating pain will be the symptom. In severe cases, the functional ability of the upper limb may be hampered.

*Nija karanas:* These are the *viprakrusta nidanas*. They can be categories under *aharajanya* and *viharajanya*.

#### Aaharajanya:-

*Ruksha, sheeta, laghu anna-* Regular or excess intake of such food articles cause *vata prakopa*. Excess of *Katu rasa* dominant food intake causes *karshana* and because of *agni* and *maruta guna* 



dominance, they produce *vata rogas* in *prushta* and *parshva*. Excess of *tikta rasa* intake causes *shoshana* of all the *dhatus* and *upadhatus* leading to *vata vikaras*. Excess of *kashaya rasa* dominant food intake causes *karshana* because of *khara ruksha guna* it causes *vata vikaara*.<sup>3</sup>

Alpa abhojana: By frequent indulgence, they cause *uttarottara dhatu kshaya*, *upadhatu kshaya and vata prakopa*. These *ksheena dhatus* are prone for easy tear or injury.

In long run, regular intake of such food will be the cause of early degeneration or it may accelerate the condition. Such degenerated parts are prone for bulge or tear

*Vihaarajanya*: These are the *viprakrusta karanas*.

Ati Vyaayama, vicheshta: Excess and regular indulgence in such activities are the cause for vata prakopa. Sudden such acts may cause vidhata in the dhatu and upadhatu in neck region causing vishwachi.

*Dhukha shayya asana:* Improper postures adopted repeatedly cause *vata prakopa* and *dhatukshaya*. Repeated minor *vidhata* weakens the structures in the cervical spine where by the minor external causes may produce the *vishwachi* easily.

Gaja Ushtra Ashva sheegra yana (Present day, this yaana may be considered as travelling in motor vehicle with a jerky movement) – Frequent such travelling cause vata prakopa, in later course, they leads to dhatukshaya. Some time they may cause minor viddhata (injury) or shithilata in the dhatu, upadhatu and sandhi in neck leading to the disease. The severe jerky movements will be the sannikrusta nidana for vishwachi where the vidhata caused will immediately manifest into vishwachi.

Repeated bending, twisting activities, posture which cause unbalanced spine leads to repeated strain over the muscle, ligaments, disc leading the to degeneration. These also lead to arthritis of the facet joints in the back region. Another most common cause of neck pain is bad posture which increases the strain on the ligaments and discs causing faster degeneration. These degenerative changes make the disc susceptible for the trauma or may rupture without any cause.

When the spine becomes unbalanced like in bad postures, twisting movements a greater number of muscle fibers are called into play at frequent intervals to keep the spine straight. Thus fatigue develops earlier. This fatigue causes muscle insufficiency as a result of which spine sags, putting the strain on the ligaments and posterior articulating facets. Gradually changes occur at the facet joints.<sup>4</sup>



Other *vata prakopa karanas* can lead to this disease by repeated indulgence. Some are like:

**Bhaaravahana:** Regular lift of heavy weight over the head or back of the neck cause repeated injury in the *asti, snayu* in greeva pradesha. They cause vata prakopa and dhatu kshaya leading to different disease like asti kshaya, snayugata vata, asti majjagata vata, Sandhi cyuti (sramsa) which are one of the cause for vishwachi. The sudden and improper lifting of heavy weight may cause sudden injury causing vishwachi immediately.

Stabilization of the back muscle is less good during movements, especially if performed abruptly or associated with lifting of a weight. This overloading, unbalanced, unwarranted movements increases load on the muscles and discs. Movements like weight lifting, direct trauma over the back, twisting movements, these all increase in pressure suddenly which will result in rupture of annulus.<sup>5</sup>

*Diwaswapna*: The *vishwachi* may have samsrusta kapha avastha where the associated symptom of tandra, gaurava and arochaka will be seen. The diwaswapana as cause of vata vyadhi will cause agnimandya leading to kapha prakopa or vice versa.

Finally all these above *nidanas* lead to *vata prakopa* directly or *vata prakopa* 

because of *dhatukshaya*. By analyzing the *nidana* and *dosha dooshya* involved, based on the symptom in the patients, proper diagnosis is made.

These nidanas may cause few of the conditions where the symptom may be poorva roopa for vishwachi or they may be the underlying cause for vishwachi. Some of the conditions are - greeva shoola/graham, astigata, majja gata, snayugata vata, asthi kshaya, majja kshaya, Asti bhagna, sandhi cyuti(sramsa) Diagnosis: The pratyatma lakshana of *vishwachi* is the radiating pain from neck to the finger tip of the affected hand. There will be associated stambha. toda. functional disability, spandana in affected hand. Then the diagnosis is *vataja* type of vishwachi. When associated with tandra, whole body gaurava and arochaka, the vata kaphaja vishwachi is the diagnosis. The association of *ama* is identified by the presence of morning stiffness, stabdata and *gauravata*. The cervical radiculopathy as per the diagnosis from the allied sciences, may be diagnosed as vataja, vata kaphaja or saama vataja, saama kaphaja vishwachi based on the associated symptom. For eg: cervical disc prolapse be the diagnosis may as per the But contemporary science. as per Ayurveda, the diagnosis changes as *vataja*, vata kaphaja or saama vataja vishwachi



based on the associated complaints. This diagnosis is important for planning the treatment which is different in these three conditions of vishwachi even though the diagnosis from modern medicine remains same. The diagnosis of involvement of dhatu, upadhatu, and other structures are also important for planning the treatment. The *snayu* involvement is diagnosed by the stambha, spurana and suptata<sup>6</sup>. The khandara involvement is evident in the samprapti itself<sup>7</sup>. Involvement of rasa dhatu is evident by sarvanga gaurava, tandra, aruchi, stabdhata.<sup>8</sup> Rakta dhatu association is assessed by daha, upashaya anupashaya like if the condition is not relieved by the sheeta ushna, snigdha and ruksha kriya<sup>9</sup>. With the help of modern imaging techniques, the involvement of asthi, sandhi is assessed with its kshaya, bhagna avastha.

#### **Treatment:**

The *Vishwchi* is the symptom complex seen in different *greevagata* conditions. Hence even though the patients presents with the symptoms of *vishwachi*, the treatment should be planned based on *dosha* dominance, *dhatu* involved, underlying cause, severity of the symptom and so on.

The main aim of treatment is Sampraptivighatana.The following line of

management is planned based on several factors involved in *samprapti*.

*Nidana parivarjana* is the first principle of treatment to be adopted. The regular following of excess travel with jerky movement, *bharavahana, dhukha shayyasana* and the *vata kara ahara* and *vihara* are to be strictly avoided so that the treatment will be effective. Any other *nidana* which may worsen the condition or predispose the second episode is to be avoided

**Specific** *chikitsa sootras:* Even though the diagnosis is *vishwachi*, based on the underlying cause, specific treatment are to be followed as explained in the *samhitas*. Few of the conditions where the *vishwachi* is symptom like *asti majja kshaya/gata vata, asti bhagna, sandhi cyuti(sramsa)*, are to be treated as per the line of management of those conditions.

Apart from this, the following *chikitsa* can also be advised when *vishwachi* is the symptom.

Paachana/ deepana/ rukshana chikitsa: In saama vata and kaphaja vishwachi (presenting with stambha, gaurava, arochaka, tandra) the initial line of treatment should be paachana chikitsa. As there is agnimandya with saama rasadhatu, deepana chikitsa with pachana be advised. Here chitraka, can panchakola, shunti such ushna teekshna



deepaniya and pachaniya dravyas can be advised till the niramavastha is achieved. Other than oral medication which is towards targeted treatment of jataragnimandya, we can achieve sthanika ama pachana and dhatwagni deepana through some of the bahya chikitsa like chorna lepana, shamananga rasnadi ruksha swedas like valuka sweda, naddisweda without abhyanga. After this stage, treatment should be continued based on the *dosha* dominance. In samsrusta line kapha avastha, the same of management is adopted.

Snehana chikitsa: this is the first line of treatment in kevala, nirama, dhatukshayaja vataja vishwachi. The bahya snehana procedure is commonly combined with swedana chikitsa as snigdha swedana. The snehana imparts snigdhata, mardavata where by vata is controlled and the rukshata, kharata in dhatu and upadhatu is reduced.

Swedana chikitsa: As there is vata and kapha prakopa presenting with stambha, graha, shoola, gaurava in greeva pradesha, swedana chikitsa is best advised for vata and kapha shamana<sup>10</sup>. Sweda relieves stambha gaurava, shoola because of its ushnadi gunas. The snigdha and ruksha type of sweda is decided based on the dosha involved. In the presence of kevala. dhatukshayaja, nirama vata,

snigdha sweda is advised in the form of greeva basti, naadi sweda. The taila and kashaya dravya used for these procedures should have vata shamana, shoolahara, brumhana guna.

Ruksha sweda in the form of Valuka sweda, choorna pinda sweda is advised in kapha pradhana and saama avastha till the nirama avastha is achieved and the anubandhi kapha is cleared. Likewise nadi sweda can also be indicated without abhyanga. After this treatment, vata shamana chikitsa is advised.

In case of *vata kaphaja* condition, *jambeera pinda sweda* may be ideal choice.

In case of severe pain, stiffness, restriction in neck movement, nadeee sweda gives a quick relief. *Snigdha or ruksha* type of *nadee sweda* is selected based on *vata or kapha pradhanata* respectively. In *Shoola pradhana* conditions, *nirgundi kashaya*, *Eranda mola kashaya* can be selected. *Bala moola kashaya* is selected for *vata shamana and brumhana*.

*Nasya karma*: Is the ideal treatment in *vishwachi* as the root cause for the disease is in *jatrurdhwa pradesha* and *nasya* has a benefit of *snehana, brumhana* and *balakara* effect over greeva *skandha pradesha*<sup>11</sup>. Among the different classification of *nasya*, specific type of



nasya is selected based on the dosha involved and effect required in the patient. In kevala vataja vishwachi, snehana nasya is selected with sneha dravyas like Kaarpaasaastyadi taila, Ksheera bala taila. In case of dhatukshyaja vata prakopa, vata shamaka and brumhana snehas are to be selected like Maashadi taila, Ksheerabala (101), Dashamooladya In case of kapha samsrusta yamaka. avastha, sneha dravyas having ushna teekshna guna with vata kapha shamana property is to be selected like *Prasarini* taila, Maha Maasha taila, Dashanga taila. In kapha pradhana or saama and aavarana conditions - initially nasya is contraindicated. Once the anubandhi kapha and saamaa is relieved by the other treatment, the snehana nasya is to be selected.

In case of marmabhighaata, Brumhana nasya with sneha having mamsa rasa, ksheera as one of the ingredient or sneha dravyas which are avartita like Dhanwantaram 101, Ksheerabala 101 can be used.

After a course of marsha nasya, patient is advised to practice Pratimarsha nasya with the same sneha. This pratimarsha nasya helps in shamana of remaining doshas, strengthens the greeva skanda pradesha<sup>12</sup> and pacifies the mild doshas aggravated by daily activities. By this, the recurrence can be prevented.

**Basti chikitsa:** After an initial course of *nasya karma, yapana basti* can be practiced in *dhatukshayaja* conditions, in severe disc lesions. *Basti* causes *vata shamana* with *brumhana*. The *dhatu samyata* achieved prevents the recurrence. In case of functional disability of the affected limb, repeated administration of course of *basti* has a major role in the management.

Measure to prevent the recurrence: Once the *samprapti vighatana* is achieved, the next line of management is to prevent the recurrence. For that. nidana parivarjana, life style modification, strengthening exercises are to be followed. Persons who are prone for *vata prakopa*, they should follow measures for vata shamana like nitya abhyanga, pratimarsha nasya, following dinacharya and rutucharya.

#### CONCLUSION

*Vishwachi*/ cervical radiculopathy is a *vataja* disease affecting all the age group without any gender bias. Even though the disease is not life threatening, but can cause severe pain, disability and crippling. Hence early diagnosis, appropriate management and measures to prevent

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recurrence are the need of the hour. Cervical radiculopathy can be co related with vishwachi as per Ayurveda where radiating pain from the neck to the affected limb with its functional disability is the presenting feature. Based on the dosha dominance, involved dooshya, upadhatu, saama and niramavastha, anubandhi dosha, the management is to be planned. Rukshana, pachana and deepana are the first line of management in saama or kapha pradhana dosha along with ruksha swedana. In kevala, dhatukshayaja vata, snigdha, vata shamaka line of treatment is planned like snigdha sweda, snehana, brumhana nasya. Yapana Basti is the ideal choice in marmbhighata, and dhatukshayaja conditions.



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